



## SEQUENCE LISTING

<110> Emerson, Lawrence W.  
White, R. Tyler

<120> SECRETED FACTORS

<130> SCIOS.017A

<140> US 60/193,548

<141> 2000-03-31

<160> 84

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1340

<212> DNA

<213> Rattus norvegicus

<400> 1

```
gcggccgccc ctgacacaat ggctcagctt atgcctcagc gcagttcgct ccaccccaga 60
atggcatcct gcagaatata cggcccctca tccccatccc gcgccagaga caccggccag 120
cccactgtcc ccgccacaca ttaaaacttga tcctcctaca cagacgcact cggagcagag 180
cgcttataca agcgcacagc cgtctccggc accgccacac agacagatga tgccgccccg 240
accgacggcc agccccagac acaaccttct gaaaacacag aaaacaagtc ccagcccaag 300
cggctgcatg tgtccaacat ccccttccgg ttccgggatc cagacctccg acaaattggtt 360
ggccaatttg gtaaaatatt agatgttgaa attattttta atgagcgggg ctggaaggga 420
tttggtttcg taactttcga aaatagtgcg gatgcggaca gggcgaggga gaaattgcac 480
ggtaccgtgg tagagggccg taaaatcgag gttaataatg cgacagcacg cgtgatgact 540
aataaaaagg ccgtggaaccc ctacaccaat ggctggaaat taaatccagt tgtgggcgcg 600
gtctacagcc ccgacttcta tgcaggcacg gtgctgttgt gccaggccaa ccaggaggga 660
tcttccatgt acagtggccc cagttcaact gtatataact ctgcaatgcc tggctttcca 720
tatccggccg ccaactgctg agctgcatac cgaggggctc accttcgagg ccgtggtcgc 780
accgtgtaca acaccttcag agctgcggcg cccccacccc caatcccggc ctatggcgga 840
gtagtgtatc aagagccagt gtatggcaat aaattgctac aggggtggtta cgctgcatac 900
cgctacgccc agcccacccc tgccactgct gctgcctaca gtgacagtta cggacgagtt 960
tatgctgccg accctacca ccacacactt gctccagccc ccacctacgg cgttggtgcc 1020
atgaatgctt ttgcgccctt gaccgatgcc aagactagga gccatgctga tgatgtgggt 1080
ctcgttcttt cttcattgca ggctagtata taccaagggg gatacaaccg ttttgctcca 1140
tattaaatga taaaaccatt aaacaaacaa gcaaaaaaca aaacaaaaac aaaaaaacca 1200
acctccaat gtgggggagag aggaagcttt ccgaggcccc agtgttgcga cacatgcagt 1260
aggacatcac tttagcaact caaagaaaca acgaaaaaaaa aaaaaaaaataagc 1320
ggccgaaggg gttcgctaga 1340
```

<210> 2

<211> 203

<212> PRT

<213> Rattus norvegicus

<400> 2

```
Met Thr Asn Lys Lys Ala Val Asn Pro Tyr Thr Asn Gly Trp Lys Leu
  1           5           10           15
Asn Pro Val Val Gly Ala Val Tyr Ser Pro Asp Phe Tyr Ala Gly Thr
```



<400> 4

Met Val Ala Thr Gly Ser Leu Ser Ser Lys Asn Thr Ala Ser Ile Ser  
1 5 10 15  
Glu Leu Leu Asp Gly Gly Ser His Pro Gly Ser Leu Leu Ser Asp Phe  
20 25 30  
Asp Tyr Trp Asp Tyr Val Val Pro Glu Pro Asn Leu Asn Glu Val Val  
35 40 45  
Phe Glu Glu Thr Thr Cys Gln Asn Leu Val Lys Met Leu Glu Asn Cys  
50 55 60  
Leu Ser Lys Ser Lys Gln Thr Lys Leu Gly Cys Ser Lys Val Leu Val  
65 70 75 80  
Pro Glu Lys Leu Thr Gln Arg Ile Ala Gln Asp Val Leu Arg Leu Ser  
85 90 95  
Ser Thr Glu Pro Cys Gly Leu Arg Gly Cys Val Met His Val Asn Leu  
100 105 110  
Glu Ile Glu Asn Val Cys Lys Lys Leu Asp Arg Ile Val Cys Asp Ala  
115 120 125  
Ser Val Val Pro Thr Phe Glu Leu Thr Leu Val Phe Lys Gln Glu Ser  
130 135 140  
Cys Ser Trp Thr Ser Leu Lys Asp Phe Phe Phe Ser Gly Gly Arg Phe  
145 150 155 160  
Ser Ser Gly Leu Lys Arg Thr Leu Ile Leu Ser Ser Gly Phe Arg Leu  
165 170 175  
Val Lys Lys Lys Leu Tyr Ser Leu Ile Gly Thr Thr Val Ile Glu Glu  
180 185 190  
Cys

<210> 5

<211> 874

<212> DNA

<213> Rattus norvegicus

<400> 5

tctagcgaac cccttcggtg gacagaacag cctgagtcag gatgaaagct ctcagggctg 60  
tcctcctgat cttgctactc agtggacagc cagggagcag ctgggcacaa gaagctggcg 120  
atgtggacct ggagctagag cgctacagct acgatgatga cggatgatgac gatgatgacg 180  
atgatgaaga agaggaagag gaggagacca acatgatccc tggcagcagg gacagagcac 240  
cgctctaca gtgctacttc tgccaagtgc ttcacagcgg ggagagctgc aacgagacac 300  
agagatgctc cagcagcaag cccttctgta tcacagtcac ctcccatggc aaaactgaca 360  
caggtgtcct gacgacctac tccatgtggt gtactgatac ctgccagccc atcgtgaaga 420  
cagtggacag caccctaatg acccagacct gttgccagtc cacactctgc aatattccac 480  
cctggcagag cccctcaatc cacaaccctc tgggtggccg ggcagacagc cccttgaagg 540  
gtgggaccag acatcctcaa ggtgacaggt ttagccaccc ccaggtgtgc aagggttactc 600  
atcctcagag tgatggggct cacttgtcta aggggtggcaa ggctaaccag cccaggggaa 660  
atggggccgg attccttgca ggctggagca aatttggtaa cgtagtctc ctgctcacct 720  
tcctcaccag tctgtgggca tcaggggcct aaagactcgt cctcccccaa ccaggacct 780  
tcagcctttc ctccctgaca accagcttca gagaataaac ttgaatgtct ttgcatct 840  
aaaaaaaaa aaaaaaaaaa aaaaagcggc cgcc 874

<210> 6

<211> 236

<212> PRT

<213> Rattus norvegicus

<400> 6

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Ala | Leu | Arg | Ala | Val | Leu | Leu | Ile | Leu | Leu | Leu | Ser | Gly | Gln |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Pro | Gly | Ser | Ser | Trp | Ala | Gln | Glu | Ala | Gly | Asp | Val | Asp | Leu | Glu | Leu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Glu | Arg | Tyr | Ser | Tyr | Asp | Asp | Asp | Gly | Asp | Asp | Asp | Asp | Asp | Asp | Asp |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Glu | Glu | Glu | Glu | Glu | Glu | Glu | Thr | Asn | Met | Ile | Pro | Gly | Ser | Arg | Asp |
|     |     | 50  |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Arg | Ala | Pro | Pro | Leu | Gln | Cys | Tyr | Phe | Cys | Gln | Val | Leu | His | Ser | Gly |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Glu | Ser | Cys | Asn | Glu | Thr | Gln | Arg | Cys | Ser | Ser | Ser | Lys | Pro | Phe | Cys |
|     |     |     | 85  |     |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Ile | Thr | Val | Ile | Ser | His | Gly | Lys | Thr | Asp | Thr | Gly | Val | Leu | Thr | Thr |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Tyr | Ser | Met | Trp | Cys | Thr | Asp | Thr | Cys | Gln | Pro | Ile | Val | Lys | Thr | Val |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Asp | Ser | Thr | Gln | Met | Thr | Gln | Thr | Cys | Cys | Gln | Ser | Thr | Leu | Cys | Asn |
|     |     | 130 |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Ile | Pro | Pro | Trp | Gln | Ser | Pro | Gln | Ile | His | Asn | Pro | Leu | Gly | Gly | Arg |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Ala | Asp | Ser | Pro | Leu | Lys | Gly | Gly | Thr | Arg | His | Pro | Gln | Gly | Asp | Arg |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Phe | Ser | His | Pro | Gln | Val | Val | Lys | Val | Thr | His | Pro | Gln | Ser | Asp | Gly |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Ala | His | Leu | Ser | Lys | Gly | Gly | Lys | Ala | Asn | Gln | Pro | Gln | Gly | Asn | Gly |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Ala | Gly | Phe | Pro | Ala | Gly | Trp | Ser | Lys | Phe | Gly | Asn | Val | Val | Leu | Leu |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Leu | Thr | Phe | Leu | Thr | Ser | Leu | Trp | Ala | Ser | Gly | Ala |     |     |     |     |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     |     |

<210> 7  
 <211> 817  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 7

|            |            |             |            |            |             |     |
|------------|------------|-------------|------------|------------|-------------|-----|
| tctagcgaac | cccttcgagc | gaaccccttc  | ggccagtacc | ctgagccctg | gtccctcctg  | 60  |
| gagctgcccc | acagctctga | ctgtggactg  | agggatgtta | ggcggatcac | ctgagcctcc  | 120 |
| agaggctcac | actaatgagc | gggcgctctc  | ttcttagcca | ctgttgcat  | tggttttcat  | 180 |
| tgactcctgg | gctcgtttg  | agtgacactg  | tccttgtctt | ttgtttcaga | gctctcccag  | 240 |
| tgtagtgga  | ctcagatgag | gaaattatga  | ccagatctga | aatagctgaa | aaaatgttct  | 300 |
| cttcagaaaa | gataatgtga | tcagggcccc  | agtgggtcca | gtgtgcatgg | gagcgcggtc  | 360 |
| aggtgatggg | aaaggcctgg | ctctcgtcaa  | aactgacagc | tgcgctatga | tacatgtctc  | 420 |
| actttgttgt | cttgagatc  | tgtgtatgca  | ggtgaagaac | tcaagtgtgg | gaggggtctgc | 480 |
| cgctcagaa  | agccatcttt | gaaacggact  | cataaagtca | gttttgttgc | cattaagttg  | 540 |
| cctgattttg | gaaacaattt | aagaagtgtt  | aaagacatgt | gttcagatgc | ctcttaggcg  | 600 |
| gcagccacag | gcatgccagg | ttgtgtccct  | cagttttctc | cagacaaaag | aatctgcagc  | 660 |
| tgggcgtggc | ggcacactac | tggcagttga  | aagtctgtaa | tttcaaggcc | aagcctggtc  | 720 |
| tacatagttc | caggacaacc | agagagatct  | acatagttag | accctgcctc | aaaacacaga  | 780 |
| aaccnnanna | naaaaaaaaa | aaaaaaaaaag | cggccgcg   |            |             | 817 |

<210> 8  
 <211> 61  
 <212> PRT  
 <213> Rattus norvegicus

<400> 8  
 Met Ser Gly Arg Ser Leu Leu Ser His Cys Cys Ile Trp Phe Ser Leu  
 1 5 10 15  
 Thr Pro Gly Pro Arg Leu Ser Asp Thr Val Leu Val Phe Cys Phe Arg  
 20 25 30  
 Ala Leu Pro Val Leu Val Asp Ser Asp Glu Glu Ile Met Thr Arg Ser  
 35 40 45  
 Glu Ile Ala Glu Lys Met Phe Ser Ser Glu Lys Ile Met  
 50 55 60

<210> 9  
 <211> 755  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 9  
 tctagcgaac cccttcgcac atgggttcct gctgaccaag gggacatggc tctgaagatg 60  
 atgaggctgg ttactcagca ggagtagctg agctgagctg gccctggagg ccctggaggc 120  
 cctggagtag ggcccaggat gcagggtgcta atgtctatcc ccggcgctct tcttcccgac 180  
 tctaccatgg gatgtaactc caggagcccc tgccatctcc cgtaccaaaa gactgtggct 240  
 tccgtgtcta ctcagaaatc agttctactt cgtaaacagt gtttaaaacc agactcattt 300  
 aatcagagtg aaggattgca gtccattggc ttcttagcac agaagcagct gataacacaa 360  
 gtaaacccca gcccttgaga ggtagaagca agaggatcag aggttcaagc gcacccctcg 420  
 ctccatcaca agttcaaaaag ccgcctgcac caaatgggag tccttgtctc aaaaaaaaaa 480  
 aaaaaaaaaa caaagaaagc aaaggactcg atgacatgat ttatagacaa aagcagtggg 540  
 agaaaatact aaagccccac tgagctgcc gccagggtgc tgtgactaca ggtcttttat 600  
 ctgctcatat atatttttac aaaaaatgaa attcatattg gtcgctattt tgctggctgc 660  
 tttgtcccg atcaacatga tttgcacgtt ttttccatca ataaatgtgc catgatattt 720  
 ttaaaaaaaaa aaaaaaaaaa aaaaaaaagg gcnc 755

<210> 10  
 <211> 79  
 <212> PRT  
 <213> Rattus norvegicus

<400> 10  
 Met Gln Val Leu Met Ser Ile Pro Gly Ala Leu Leu Pro Asp Ser Thr  
 1 5 10 15  
 Met Gly Cys Asn Ser Arg Ser Pro Cys His Leu Pro Tyr Gln Lys Thr  
 20 25 30  
 Val Ala Ser Val Ser Thr Gln Lys Ser Val Leu Leu Arg Lys Gln Cys  
 35 40 45  
 Leu Lys Pro Asp Ser Phe Asn Gln Ser Glu Gly Leu Gln Ser Ile Gly  
 50 55 60  
 Phe Leu Ala Gln Lys Gln Leu Ile Thr Gln Val Asn Pro Ser Pro

65

70

75

<210> 11  
 <211> 806  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 11  
 tctagcgaac cccttcgcag ctctctgacc tgcgtcgccg ccgctctccg ctcttgattt 60  
 cgccgtgatg tcgaccgcaa tgaacttcgg gaccaaaagc ttccagccgc ggccccccaga 120  
 caaaggcagc ttcccgctag accacttcgg tgagtgtaaa agctttaagg aaaaattcat 180  
 gaagtgtctc cgcgacaaga actatgaaaa tgctctgtgc agaaatgaat cttaaagagta 240  
 tttaatgtgc aggatgcaaa ggcagctgat ggcaccagaa ccactagaga aactcggctt 300  
 tagagacata atggaggaga aaccggaggc aaaggacaaa tggtgagaat cactgggctg 360  
 tgtcccccta cctggagcag agctgagccc ttctgcccac cgtggagaga gctgagccat 420  
 cctgtgtctg ccagaggagg ggctctccgt gtcgactttg gctcatccct gcagcacaga 480  
 ccaaactgct ttctctactg accacacttc tgcttcagag agnggtttct cctgtctgng 540  
 tgtggcacag gatctgctca nggctgaaca ctgatgtgat atgatatccc acctagtgtg 600  
 gccgcacacc aaaaggcctg gacaggattt cacagtgaact caacctgagt cctcacaccc 660  
 ggaacctgtc agcgaaaacc aancgaagca aaatgnectg cttttggctt acaaacccca 720  
 tnatttgntt tcccttctct tgggtctttg ttttgacaaa nctggcatac aaagtnggaa 780  
 gggggaaata aaaaaaaaaa aaaaaa 806

<210> 12  
 <211> 92  
 <212> PRT  
 <213> Rattus norvegicus

<400> 12  
 Met Ser Thr Ala Met Asn Phe Gly Thr Lys Ser Phe Gln Pro Arg Pro  
 1 5 10 15  
 Pro Asp Lys Gly Ser Phe Pro Leu Asp His Phe Gly Glu Cys Lys Ser  
 20 25 30  
 Phe Lys Glu Lys Phe Met Lys Cys Leu Arg Asp Lys Asn Tyr Glu Asn  
 35 40 45  
 Ala Leu Cys Arg Asn Glu Ser Lys Glu Tyr Leu Met Cys Arg Met Gln  
 50 55 60  
 Arg Gln Leu Met Ala Pro Glu Pro Leu Glu Lys Leu Gly Phe Arg Asp  
 65 70 75 80  
 Ile Met Glu Glu Lys Pro Glu Ala Lys Asp Lys Cys  
 85 90

<210> 13  
 <211> 717  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)

<223> n = A, T, C, or G

<400> 13

```
tctagcgaac cccttcncga aggggttcgc cgagaggtgg gagccaaaag gatggagcat 60
ccgccggtgg tggctgggtg ccgcaatctt ggtggtcctg atcgggggtg tcttagtctg 120
cctgatagtc tacttcgcca acgcagcgca cagcgaggcc tgtaagaacg ggttgcggtt 180
gcaggatgag tgccgaaaca ccacgcacct gttgaagcac cagctnaccg gcgcccagga 240
cagcctgctg cagacggaga tgcaggcaaa ctcttgcaac cagaccgtga tggaccttcg 300
ggattccctg aagaagaagg tgtctnaaac ccaggagcaa cangcccgca tcaaggaact 360
tgagaataag atcgagaggc tgaaccaaga gctggagaaa tttgaggacc caaaaggaaa 420
tttctaccac agtgcangtg aactcaagcg ggttcgtggt ggncttcanc ctacttgtgc 480
tttggtggcg gactgttctn cactttttan gacccaataa ttgggangta caaacctgtg 540
taggcattgn nggtngtaat ggcttttgag ggggtcctgg cacccttaag atgtgaanac 600
cattangnng gacccaaaat gnnttttctt gntttgaact ggggcggacc cggagtgggg 660
ggcnggaaat aanntattnn ggnnggaaan aaaaaaaaaa aaaaaaaaaa gcgggccc 717
```

<210> 14

<211> 86

<212> PRT

<213> Rattus norvegicus

<220>

<221> UNSURE

<222> (0)...(0)

<223> Xaa = any amino acid

<400> 14

```
Met Gln Ala Asn Ser Cys Asn Gln Thr Val Met Asp Leu Arg Asp Ser
 1          5          10          15
Leu Lys Lys Lys Val Ser Xaa Thr Gln Glu Gln Xaa Ala Arg Ile Lys
 20          25          30
Glu Leu Glu Asn Lys Ile Glu Arg Leu Asn Gln Glu Leu Glu Lys Phe
 35          40          45
Glu Asp Pro Lys Gly Asn Phe Tyr His Ser Ala Xaa Glu Leu Lys Arg
 50          55          60
Val Arg Gly Gly Leu Xaa Pro Thr Cys Ala Leu Trp Arg Asp Cys Ser
 65          70          75          80
Xaa Leu Phe Xaa Thr Gln
          85
```

<210> 15

<211> 1235

<212> DNA

<213> Rattus norvegicus

<220>

<221> unsure

<222> (0)...(0)

<223> n = A, T, C or G

<400> 15

```
tctagcgaac cccttcgccc agctgctaga agccaggctg gcctgggtgag gcatgagcat 60
gaagatgaac ccaggtgaca aggacaagat gttgctcttc tccccaccct ttgacccttg 120
tcttctaagg catctaggaa ggaaccagtg tccttggtac tgatttactt agattcaacc 180
taagggtcca gccactgact aaggccaagg ccatttttcc atacctggga gggtagagat 240
tcagggttgt gggtaagtgg gcactaaaca tggatttgca agggaaaacg acagggcac 300
```

```

gagctaaatt tgaatttaca tgaatttctg aaatgtactt gtatgaagaa actgttatct 360
gaaacctaac ttaaattggc atcctgcctt ttgtctggtg agaaatgaaa gtgatctaca 420
ataagtgtca aagcaacaag gccctctggt atagtcttag gccaggatga ggatactaag 480
tgccttcaaa gcgagaggga ggcaggccaa gaacactgcc ctactgaaag gcaggcttgg 540
ccggctaggg cctccaaggc cctgatccct gaggcaccac agccacaact tgtgtaggcc 600
tggcccagggt cagtgaatag gttctaggca gtggttctca accttcctaa tgctgcaacc 660
cttcaataca gtttctcctg ttgtagtaat ccccaaccat aaaattatct tcattgcgac 720
ttcataactg gacttttgct actggtatga atcataatgt aaatattttt tggagctaga 780
ggtttaccaa gggggttgtg agccataggt tgaaaacat tggtcttagga atagctccag 840
gggtggtttc tgaggccccc gcaagggtgg atctatgggg cagggttggg tcttctccaa 900
gagcccccac caggatatat atatatatat atatatatat atatatatat atatatatat 960
atatactttg atagcatccc atggaacgac tgtctcctga tactaaaggg agcttggaag 1020
aaaccaaggc tgagagaagt tgtagagtgg gaaggtaggc gaagggattg aggtgacaca 1080
gtgatagccc cttcagggtg gggcttacct nagacagcag ataaaggcct taggatggga 1140
gattactctg gctgctcaga ggggaacaca gggacacagc accaataaaa tctctttctt 1200
ttcaaaaaaa aaaaaaaaaa aaaaaaaagc ggncc 1235

```

<210> 16  
 <211> 36  
 <212> PRT  
 <213> Rattus norvegicus

<400> 16  
 Met Ser Met Lys Met Asn Pro Gly Asp Lys Asp Lys Met Leu Leu Phe  
 1 5 10 15  
 Ser Pro Pro Phe Asp Pro Cys Leu Leu Arg His Leu Gly Arg Asn Gln  
 20 25 30  
 Cys Pro Trp Tyr  
 35

<210> 17  
 <211> 633  
 <212> DNA  
 <213> Rattus norvegicus

<400> 17  
 tctagcgaac cccttcgatt ttattagctc ttgcttctcc attcctcata atttatgaat 60  
 tatacagcct tcgcttgaat acgcgtctga agttatgctt tgtgttgttg tgggtttttt 120  
 tttttttttc ttttcttttt ttttgagct ggggaccgaa ccagggcct tgttgctcta 180  
 ccactgagct aaatcccaa cccctgttgt gtgttttaa taagtctctt actgtccatt 240  
 ttgtaattag tgttgttacc ttgtaataat agacatcata caaagtttcc tcttttttgt 300  
 gccagtgctg agaacatgag aaacatttaa tgagtatttg tttgttaa atattttata 360  
 acggctagaa tggcagacac acatggtagc acatgatggt gattttcggg ggccttttgt 420  
 ttgctcagag ctggtaatct ctgccggttg gtttgctttg cctgggtctgg gactaacctc 480  
 acattttctc actcttgctt tccgagagat tagtcaccc tccgtgctta ctgggctctc 540  
 gatagcgctc atcagcatat tgcatttcaa tcccagcgaa ggggttcgcc gaaggggttc 600  
 gctaggccag tgtgatggat atctgcagaa ttc 633

<210> 18  
 <211> 83  
 <212> PRT  
 <213> Rattus norvegicus

<400> 18  
 Met Val Ala His Asp Gly Asp Phe Arg Gly Pro Phe Val Cys Ser Glu  
 1 5 10 15



|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Ile | Ser | Ala | Gly | Trp | Phe | Ala | Leu | Pro | Gly | Leu | Gly | Leu | Thr |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Ser | His | Phe | Leu | Thr | Leu | Ala | Phe | Arg | Glu | Ile | Ser | His | Pro | Ser | Cys |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Pro | Thr | Gly | Leu | Ser | Ile | Ala | Leu | Ile | Ser | Ile | Leu | His | Phe | Asn | Pro |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Ser | Glu | Gly | Val | Arg | Arg | Arg | Gly | Ser | Leu | Gly | Gln | Cys | Asp | Gly | Tyr |
| 65  |     |     |     |     | 70  |     |     |     | 75  |     |     |     |     | 80  |     |
| Leu | Gln | Asn |     |     |     |     |     |     |     |     |     |     |     |     |     |

<210> 19  
 <211> 607  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 19  
 tctagcgaac cccttcgcct ttctccaaag ccttcccgtt tcctcttgac agctacgggc 60  
 tgaggcagcc attcctgcag cagcgctcgg ccggtgaagg gccgaactga cgcctcctag 120  
 atctgtctcg gctgaattac tctcaccogt ttccattctg tgtgcaccag aaatctgaga 180  
 tccaggagta tcaacagcaa agatgtctaa tgagccaccc cctccttatt caggagggcc 240  
 tacagcccca ctactggagg aaaaaagtgg agccccacat accccaggcc gaacctttcc 300  
 agctgtgatg cagccaccac caggcatgcc actgccctct gttgacattg ccccccgcc 360  
 ctatgagccg cctggccatc cagggcctaa gcctgggttw atgccccca cnttaccaca 420  
 cattcnaana accttntnt gtaaaagtta aataanaang gagggattcg anccccctnc 480  
 aacnggtttc aagccaattt ymtaaccatt ttgttttttt cwtttaaaaa aaaaaaaaaa 540  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ggggaaaaaa aaaaaaaaaa aaaaaaaggg 600  
 gggcccc 607

<210> 20  
 <211> 82  
 <212> PRT  
 <213> Rattus norvegicus

<220>  
 <221> UNSURE  
 <222> (0)...(0)  
 <223> Xaa = any amino acid

<400> 20  
 Met Ser Asn Glu Pro Pro Pro Tyr Pro Gly Gly Pro Thr Ala Pro  
 1 5 10 15  
 Leu Leu Glu Glu Lys Ser Gly Ala Pro His Thr Pro Gly Arg Thr Phe  
 20 25 30  
 Pro Ala Val Met Gln Pro Pro Pro Gly Met Pro Leu Pro Ser Val Asp  
 35 40 45  
 Ile Ala Pro Pro Pro Tyr Glu Pro Pro Gly His Pro Gly Pro Lys Pro  
 50 55 60  
 Gly Xaa Met Pro Pro Thr Leu Pro His Ile Xaa Xaa Thr Xaa Xaa Cys  
 65 70 75 80  
 Lys Ser

<210> 21  
 <211> 1456  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 21  
 tctagcgaac cccttcgcaa agtcctaagc cttacatgag aaaattttaag acacccttaa 60  
 tgattgcgga agaaaaatac agacaacaaa ggaagagct tgagaaacag agacgggaga 120  
 gttcttgcca tagcatcatc aaaacagaaa cccagcaccg cagcttatca gagaaagaga 180  
 aagaaacaga gttacaaaaa gcagctgagg caatgtccac tcccagaaaag gattcagact 240  
 tcactagggc acagcccaac ctggaaccta aaagcaaggc tgtgatcgcc agtgaatgct 300  
 ctgaaagcca gctctctaca gcttccgcat tgacagtcgc taccgagagg ctccagcatg 360  
 ttctagccgc ttcagacgat aagcttacct tgcgacggga aggcacacag aactcaagtg 420  
 acaccctaca atcgaaaaca gcttgtgaga ttaaccagag tcacaaggaa tgtaggacag 480  
 agcaaacatt tgagcaaacac gtggagaagt tgcccttccc ccaaaccaaa cccatttccc 540  
 cgagtttcaa agtgaaaact atcaggcttc cagctctaga tcatacgtg actgaaacag 600  
 atctcagttc tgaacgccgc gtaaagcaat ccgaaattga cgttcaaacc agtactaaag 660  
 aatgaataa ggaaattaag aaaaccgaag tgagcacaca gtgtgataat aagcaatctg 720  
 tggctgaaaa atattttcaa ttacctaaaa cagagaaacg ggtgacggta caaatgcca 780  
 aagactatgc agcgaagaat catcaaagca aactccaaac agttcccaag aagcatggag 840  
 gattggggga gtttgacaga gggaatgtcc tggggaggga aggaaaaaat caggactcct 900  
 ccatgagcag tacaaaaagaa agcagggtaa tagttgaaaag aaagcaagaa catctacagg 960  
 accagagcgt accaaggtta gtccaacaaa agattatcgg tgaaagcctg gactcacggg 1020  
 ttcagaattt tcagcagaca caaacacaaa cttctaggat tgagcataaa gaactgtccc 1080  
 aaccttacag tgagaaaaaa tgtcttagag acaaggacaa acaacaaaaa caggtctcct 1140  
 ctaacactga cgattcaaag caagagataa cacaaaaaca atcttcattt tcctctgtga 1200  
 gagaatccca gcaggatgga gaaaaatgtg ccataaaaat attggaattc ttgagaaaac 1260  
 gtgaagaact acagcagatt ttgtctaggg taaaacagtt tgaagcagat tcaaataaaa 1320  
 gtggccttaa aacatttcag acactgttaa atattgctcc ggtgtggctg ataagtgagg 1380  
 agaaaagaga atatggagtt cgtgttgcca tggagaataa ttagaaaaaa taataaaaaa 1440  
 aaaaaaagc ggcgnc 1456

<210> 22  
 <211> 462  
 <212> PRT  
 <213> Rattus norvegicus

<400> 22  
 Met Arg Lys Phe Lys Thr Pro Leu Met Ile Ala Glu Glu Lys Tyr Arg  
 1 5 10 15  
 Gln Gln Arg Glu Leu Glu Lys Gln Arg Arg Glu Ser Ser Cys His  
 20 25 30  
 Ser Ile Ile Lys Thr Glu Thr Gln His Arg Ser Leu Ser Glu Lys Glu  
 35 40 45  
 Lys Glu Thr Glu Leu Gln Lys Ala Ala Glu Ala Met Ser Thr Pro Arg  
 50 55 60  
 Lys Asp Ser Asp Phe Thr Arg Ala Gln Pro Asn Leu Glu Pro Lys Ser  
 65 70 75 80  
 Lys Ala Val Ile Ala Ser Glu Cys Ser Glu Ser Gln Leu Ser Thr Ala



<223> n = A, T, C, or G

<400> 23

```
gaattgtaat acgactcact atagggcgaa ttggggcccct agcgaacccc ttcgacaaca 60
tcaaagagga cagatctaac cctagactga ggccggaggc ctggaccaat tacctgaggg 120
atgtccacag agccttttgca ctgctgaaca gtcaccctga tccaaaccaa gtaaatggga 180
ctccaactgc accaagcagt ggcctcccag tcacctctgc tgagctcttg gtgccggcag 240
agatggcttc tgcagagtca ggtgaagacc caagtcatgt ggttggggaa acgcctcctt 300
tgaccttgcc agccaacctc caaacctgc atccgaacag accaacgttg agtccagaga 360
gaaaacttga atggaataac gacattccag aagtgaatcg tttgaattct gaacactgga 420
gaaaaactga ggagcagcca ggacgggggg aggtgcttct ccccgaaagt gacgtcagt 480
gcaacggtat gacagagctg ttgcccacg gtcggcacca acaaaagcgt cccacagatg 540
cggggccaaga ggaccatgct tttgaagatc aattgcatcc tctcgtccac tctgacagaa 600
ctcccgttca tcgggtgttc gatgtgtccc acttggagca gcctgttcac tccagccacg 660
tggaaggaaat gttggccaag atggagggga tggcacaag gagtgggcac caagtctcga 720
aggcagcgcc tcctctccag tcacttcttg cttagattac atgttgccca acaatgtttc 780
tttccatgtt ttgattagta aactaactcg tggtggaat catgactccc aaccttctga 840
gtcccccggt gtacgcttgc accgtagacg ctcatgtgcg caccgtgctg gtgatgctca 900
cacacagact cattgttaatt caccgtttta ccgagaaggg ggggggggag aatttttctgt 960
gttgatgctt tgttttttgt actaaaacag nattatcttt tgaatattgt agggacatga 1020
gtatataaag tctatccagt caaaatggct agaattgngc ctttgtaagt tttaaaaact 1080
tgatgccac atgagtctgt gagcacatnt ttcccgctg cctaacggag ttggaatttg 1140
tttctaacca ctgtaattct tcaacatcat caccttttgt tcagtgattt tgcactttga 1200
gtttggatac tgtgtctgct tggttggtag tgttagtatt tttcttttaa acaggcttat 1260
cagagttgca cactttgtcc taggcagggc aaaggaatag acgccagca aggacacaca 1320
gtataggtaa catactgctt atcgtagctt tttccacaa agcattgcat gtgtttttac 1380
ctcgacgtgc taaagttgat tagcagaaaag gcatgactca caatttttgt ggtaaaaaat 1440
aaacctgag ggagcaagca ataactaaaa caagattgag ctgctctctc tgtgcttact 1500
aaatagatgc tcgccctgct aatgcttgcc ctcttgaaa aagaaacagg atgcacactg 1560
ctttatttca atcttctct ttttttcttg gtttcaccag tgagcgtaag cattggaaaa 1620
atatgtgtag tcttatcttt ctataagacg attttaataa actaaaatca caaatgctgt 1680
aaagtttgtg cgcaccagaa tggaggctaa cttcataaac attgtgctgt gcgaatattc 1740
ctaaaatgat ccccaagctg tggttttcta gaagacatag ttcagaaccg cttttgaaaa 1800
atctgtcctc gtgagctcac tcagtttctg tcggactttt agagacagtg gaaggattac 1860
ctcattgaga cgtttccgtg tcctcttcaa ctccacaggg tcttgacggt ggctttgttt 1920
ttccttctag actattcaaa catgtagata agttatattt ttctttaagt gtttaaagta 1980
aacacttttc aaaaaaaaaa aaaaaaaaaa aaaaagcggc cgc 2023
```

<210> 24

<211> 170

<212> PRT

<213> Rattus norvegicus

<400> 24

```
Met Ala Ser Ala Glu Ser Gly Glu Asp Pro Ser His Val Val Gly Glu
1          5          10          15
Thr Pro Pro Leu Thr Leu Pro Ala Asn Leu Gln Thr Leu His Pro Asn
20          25          30
Arg Pro Thr Leu Ser Pro Glu Arg Lys Leu Glu Trp Asn Asn Asp Ile
35          40          45
Pro Glu Val Asn Arg Leu Asn Ser Glu His Trp Arg Lys Thr Glu Glu
50          55          60
Gln Pro Gly Arg Gly Glu Val Leu Leu Pro Glu Gly Asp Val Ser Gly
65          70          75          80
Asn Gly Met Thr Glu Leu Leu Pro Ile Gly Arg His Gln Gln Lys Arg
85          90          95
Pro His Asp Ala Gly Pro Glu Asp His Ala Phe Glu Asp Gln Leu His
```

|   |                                 |     |
|---|---------------------------------|-----|
| 100   | 105                             | 110 |
| Pro Leu Val His Ser Asp Arg Thr             | Pro Val His Arg Val Phe Asp Val |     |
| 115   | 120                             | 125 |
| Ser His Leu Glu Gln Pro Val His Ser Ser His | Val Glu Gly Met Leu             |     |
| 130   | 135                             | 140 |
| Ala Lys Met Glu Gly Met Ala Gln Arg Ser Gly | His Gln Val Ser Lys             |     |
| 145   | 150                             | 155 |
| Ala Ala Pro Pro Leu Gln Ser Leu Leu Ala     |                                 |     |
| 165   | 170                             |     |

<210> 25  
 <211> 1802  
 <212> DNA  
 <213> Rattus norvegicus

<400> 25  
 tctagcgaac cccttcgggg gttttcatca tggagctgtc gcggcggatt tgtctcgtcc 60  
 gactgtggct gttgctactg tcattcttac tgggcttcag cgcgggatct gccctcaact 120  
 ggcggaaca agaaggcaag gaagtatggg attacgtgac tggtcgagag gatgcacgca 180  
 tggtctggtg gctctactat gccaccaacc cttgcaagaa cttctcagag ctgcctctgg 240  
 tcatgtggct tcagggtggt ccagggtggt ctagcactgg atttggaac tttgaggaaa 300  
 tcggccctct tgacacccga ctcaagccac ggaacactac ctggctgcag tgggccagtc 360  
 tcctgttcgt ggacaatcct gtgggcacgg gcttcagtta cgtgaacacg acagatgcct 420  
 acgcaaagga cctggacacg gtggcttccg acatgatggt cctcctgaaa tccttctttg 480  
 attgtcataa agaattccag acggttccgt tctacatttt ctcagaatcc tacggaggaa 540  
 agatggctgc tggcatcagt ttagaacttc acaaggctat tcagcaaggg accatcaagt 600  
 gcaacttctc tggggttgct ttgggtgact cctggatctc ccctgtggat tcagtgtgtg 660  
 cctggggacc ttacctgtac agcgtgtctc tccttgataa taaaggcttg gctgaggtgt 720  
 ccgacattgc ggagcaagtc ctcaatgaaa aacaagggtc tctacaagga agccactcag 780  
 ctgtggggga aagcagaaat gatcattgaa aagaacaccg acggggtaaa cttctataac 840  
 atcttaacta aaagcaccct cgacacctct atggagtcga gcctcgagtt cttccggagc 900  
 cccttagttc gtctctgtca gcgccacgtg agacacctac aaggagacgc cttaagtcag 960  
 ctcatgaacg gtcccatcaa aaagaagctc aaaattatcc ctgacgacgt ctctgggga 1020  
 gccagtcgt cctccgtctt cataagcatg gaagaggact tcatgaagcc tgtcatcgac 1080  
 atcgtggata cggttgctgga actcggggtc aatgtgactg tgtacaatgg gcagctggat 1140  
 ctcatgtgg acaccatagg tcaggagtcc tgggttcaga agctgaagtg gccacagctg 1200  
 tccagattca atcagctaaa atggaaggcc ctgtacaccg atcctaagtc ttcagaaaca 1260  
 tctgcatttg tcaagtccta tgagaaccta gcgttctact ggatcctaaa ggcgggtcac 1320  
 atggttcctg ctgaccaagg ggacatggct ctgaagatga tgaggctggt tactcagcag 1380  
 gagtagctga gctgagctgg ccctggaggc cctggaggcc ctggagtagg gcccaggatg 1440  
 caggtgctaa tgtctatccc cggcgctctt cttcccgaact ctacctggg atgtaactcc 1500  
 aggagcccct gccatctccc gtaccaaaag actgtggctt ccgtgtctac tcagaaatca 1560  
 gtttactctt gtaaacagtg tttaaaacca gactcattta atcagagtga aggattgcag 1620  
 tccattggct tcttagcaca gaagcagctg ataacacaag taaaccccag cccttgagag 1680  
 gtagaagcaa gaggatcaga ggttcaagcg catcctcggc tccatcaciaa gttcaaaagc 1740  
 cgctgcacc aaatgggagt ccttgtctca aaaaaaaaaa aaaaaaaaaa aaaagcggcc 1800  
 gc 1802

<210> 26  
 <211> 259  
 <212> PRT  
 <213> Rattus norvegicus

<400> 26  
 Met Glu Leu Ser Arg Arg Ile Cys Leu Val Arg Leu Trp Leu Leu Leu  
 1 5 10 15

Leu Ser Phe Leu Leu Gly Phe Ser Ala Gly Ser Ala Leu Asn Trp Arg  
                   20                  25                  30  
 Glu Gln Glu Gly Lys Glu Val Trp Asp Tyr Val Thr Val Arg Glu Asp  
                   35                  40                  45  
 Ala Arg Met Phe Trp Trp Leu Tyr Tyr Ala Thr Asn Pro Cys Lys Asn  
                   50                  55                  60  
 Phe Ser Glu Leu Pro Leu Val Met Trp Leu Gln Gly Gly Pro Gly Gly  
 65                  70                  75                  80  
 Ser Ser Thr Gly Phe Gly Asn Phe Glu Glu Ile Gly Pro Leu Asp Thr  
                   85                  90                  95  
 Arg Leu Lys Pro Arg Asn Thr Thr Trp Leu Gln Trp Ala Ser Leu Leu  
                   100                  105                  110  
 Phe Val Asp Asn Pro Val Gly Thr Gly Phe Ser Tyr Val Asn Thr Thr  
                   115                  120                  125  
 Asp Ala Tyr Ala Lys Asp Leu Asp Thr Val Ala Ser Asp Met Met Val  
 130                  135                  140  
 Leu Leu Lys Ser Phe Phe Asp Cys His Lys Glu Phe Gln Thr Val Pro  
 145                  150                  155                  160  
 Phe Tyr Ile Phe Ser Glu Ser Tyr Gly Gly Lys Met Ala Ala Gly Ile  
                   165                  170                  175  
 Ser Leu Glu Leu His Lys Ala Ile Gln Gln Gly Thr Ile Lys Cys Asn  
                   180                  185                  190  
 Phe Ser Gly Val Ala Leu Gly Asp Ser Trp Ile Ser Pro Val Asp Ser  
                   195                  200                  205  
 Val Leu Ser Trp Gly Pro Tyr Leu Tyr Ser Val Ser Leu Leu Asp Asn  
                   210                  215                  220  
 Lys Gly Leu Ala Glu Val Ser Asp Ile Ala Glu Gln Val Leu Asn Glu  
 225                  230                  235                  240  
 Lys Gln Gly Leu Leu Gln Gly Ser His Ser Ala Val Gly Glu Ser Arg  
                   245                  250                  255  
 Asn Asp His

<210> 27  
 <211> 630  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 27  
 tctagcgaac cccttcgcga aggggttcgc taggttgctg ttgtggagaa aaatctgttc 60  
 tacctcaggg ctgtgagaac ggcactcctg atgtctgaga aagagaaaca agattggctg 120  
 aaggatcctc cgttccttca gagacctggg tggagagcat tagggacacg aagaacagag 180  
 tagcggaga agagtctta agtaataagt ttacctcctg actggctcac atcactgcct 240  
 tactctgtag aaagcaggtc atctcatgga tttccccctc ccaccccccc agctggatca 300  
 ttttttgact cagggaataat aattaaatta ttgtccaact gttagtgttg atcggtaaca 360  
 gcagaaaggc agaaagtcc tgataatctc aatattatct tttcaaaagt attttcctgg 420  
 aatgttgttt gctttggcat tacaaagttc tgtactctta aaaatatatt gacttgctgg 480  
 gcatggaggt cacaccttta atccagaggc aggcattgat ccacaggagt tcaaggccgc 540  
 ctggctacaa agcgagttca agggcagcca gggctacaca gagagacctt gtctcntnac 600  
 cnntnannaa aaaacnaaaa agccggccgc 630

<210> 28  
<211> 30  
<212> PRT  
<213> Rattus norvegicus

<400> 28  
Met Ser Glu Lys Glu Lys Gln Asp Trp Leu Lys Asp Pro Pro Phe Leu  
1 5 10 15  
Gln Arg Pro Gly Trp Arg Ala Leu Gly Thr Arg Arg Thr Glu  
20 25 30

<210> 29  
<211> 445  
<212> DNA  
<213> Rattus norvegicus

<400> 29  
tctagcgaac cccttcggta tagtctttag gtagtggcctt agtccctgga agctctgggtt 60  
gcttggcatt tcaacgtgct tcttaaataa ctgttttatt agtcagtaca agatgctttg 120  
tatatcagat ctgaaatata ttaaaattat cacttgcatt gtaaattact attcctttcg 180  
cagaaataat gaatgcttca agaaaaaaaa aagctgtttg tattgggtttt aaaacgtttc 240  
caaacaccaa ttattcttta cttaagtcac cccgatctagt tattaaatta ttattactgc 300  
cttcacacta tcaaagatgg taaatatctg atagaatcat attcaaaaata cttctgtttc 360  
acatttcttg agaaagtact gactgtctga gttctttctc aagaaatgtg aaacagaagt 420  
atattgaatc gaaggggttc gctag 445

<210> 30  
<211> 39  
<212> PRT  
<213> Rattus norvegicus

<400> 30  
Met Leu Cys Ile Ser Asp Leu Lys Tyr Leu Lys Ile Ile Thr Cys Ile  
1 5 10 15  
Val Asn Tyr Tyr Ser Phe Arg Arg Asn Asn Glu Cys Phe Lys Lys Lys  
20 25 30  
Lys Ser Cys Leu Tyr Trp Val  
35

<210> 31  
<211> 273  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> unsure  
<222> (0)...(0)  
<223> n = A, T, C, or G

<400> 31  
tctagcgaac cccttcggaa gaactgtata tttgtgcctt gttctgcaag ttaaaaagct 60  
ggtccagaca gtgtcataga attaaacttt catttctgta ttaatttttag gactgcaaaa 120  
atcccaaagc tgtatactta gattggattc aataaaaaagt ttaagtttac tnaanaaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaanaaaaa aaaaaaaagg 240  
aaaaaaaaaa ncggnncnaa aaaagnggc cgc 273

<210> 32  
 <211> 2077  
 <212> DNA  
 <213> Rattus norvegicus

<400> 32  
 tctagcgaac cccttcgggg gaacccaagc ggcttcgccc aggcattcgc gcgggcgccc 60  
 gcggtctggg tcccacctcc tctgctttcg cacccttgaa gttttggagc accaggaaaa 120  
 gagggcaagg aaggagaggg gaagcgaaag catatcctaa aacatttact taaaggagga 180  
 aagaaaaggg gtcgcagaaa tggctggggc aattatagaa aacatgagca ccaagaagct 240  
 ctgcattgtt ggagggattc ttctggtttt ccaaatcggt gcctttctgg tgggaggctt 300  
 gatcgctcca gcaccacaa cggcagtgtc ctacgtggca gcaaaatgtg tggatgtccg 360  
 gaagaaccac cataaaacaa gatggctgat gccctgggga ccaaacaagt gtaacaagat 420  
 caatgacttc gaagaagcaa ttccaaggga aattgaagcg aatgacattg tgttttctgt 480  
 acacattccc ctcccttcta tggagatgag cccatggttc cagtttatgc tgtttatcct 540  
 gcagatagac attgctttca agctaaacaa ccaaatacaga gaaaatgcag aagtttccat 600  
 ggatgtttcc ctgggttacc gtgatgatat gttttctgag tggactgaaa tggcgcacga 660  
 aagagtacca cgtaaaactca gatgcacttt cacatcccc aagaccccag agcatgaagg 720  
 tcgtcattat gaatgtgatg tccttccttt catggaaatt gggtcagtgg ctcataagta 780  
 ttaccttcta aatatccggc tacctgtaaa tgagaagaag aaaatcaatg ttggaattgg 840  
 ggaaataaag gacattcggg tgggtgggaat ccaccaaatt ggaggtttca ctaaggatat 900  
 gtttgctatg aagaccttcc tcacaccag catcttcac attatgggtg ggtattggag 960  
 aaggatcacc atgatgtccc gacctccagt gcttctggaa aaagtcatct ttgcccttgg 1020  
 gatttccatg acctttatca atatccctgt ggaatggttt tccattggat ttgattggac 1080  
 ctggatgctg ttatttgggtg acatacgaca gggcatcttc tatgcaatgc ttctttcctt 1140  
 ctggatcatc ttctgtggcg agcacatgat ggatcaacat gagcggaaac acattgcagg 1200  
 gtattggaag caagttggac caattgctgt tggctctttc tgcctcttca tatttgacat 1260  
 gtgtgagaga ggagtgaac tcacaaatcc tttctacagt atctggacta cagatgttgg 1320  
 aacagaactg gctatggctt tcatcattgt ggcaggtatc tgcctctgcc tctacttcct 1380  
 gtttctgtgt ttcatggtat ttcaagtatt cagaaacatc agtgggaaac agtctagcct 1440  
 cccagccatg agcaaaagtc ggaggctgca ctatgagggt ctgattttca gggtcaagtt 1500  
 cctcatgctg atcaccttgg cttgtgctgc catgactgtt atcttcttca ttgttagtca 1560  
 ggtgacagaa ggccattgga aatggggtgg ggtcacagtt caagtgagca gtgctttcct 1620  
 cactggaatc tatgggatgt ggaacctgta tgtctttgct ttgatgttct tgtatgcacc 1680  
 atcccataag aactatgggg aagaccagtc taatgggtgac ctgggtgtcc acagcgggga 1740  
 agaactgcag ctactacca caatcaccca tgtagatgga ccgactgaga tctacaagtt 1800  
 gaccgtaaaa gaagcacagg agtagtaggc tatggcattc atcctcaggg caggtgatga 1860  
 agccaagttg ctggtgcatg ctgacctca tgaatatgct ttcgtatctt tatgtcccag 1920  
 gatcattttt atcctgtcac gtttacaaga acatttctga catgcatacg tttactttta 1980  
 ccatgtatta gttactttta tatttctgtg ataaaacacc atgagaaata caatttacag 2040  
 aagcaaaaaa aaaaaaaaaa aaaaaaaaag cggccgc 2077

<210> 33  
 <211> 541  
 <212> PRT  
 <213> Rattus norvegicus

<400> 33  
 Met Ala Gly Ala Ile Ile Glu Asn Met Ser Thr Lys Lys Leu Cys Ile  
 1 5 10 15  
 Val Gly Gly Ile Leu Leu Val Phe Gln Ile Val Ala Phe Leu Val Gly  
 20 25 30  
 Gly Leu Ile Ala Pro Ala Pro Thr Thr Ala Val Ser Tyr Val Ala Ala  
 35 40 45  
 Lys Cys Val Asp Val Arg Lys Asn His His Lys Thr Arg Trp Leu Met  
 50 55 60



|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Pro | Trp | Gly | Pro | Asn | Lys | Cys | Asn | Lys | Ile | Asn | Asp | Phe | Glu | Glu | Ala |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Ile | Pro | Arg | Glu | Ile | Glu | Ala | Asn | Asp | Ile | Val | Phe | Ser | Val | His | Ile |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Pro | Leu | Pro | Ser | Met | Glu | Met | Ser | Pro | Trp | Phe | Gln | Phe | Met | Leu | Phe |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |
| Ile | Leu | Gln | Ile | Asp | Ile | Ala | Phe | Lys | Leu | Asn | Asn | Gln | Ile | Arg | Glu |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |
| Asn | Ala | Glu | Val | Ser | Met | Asp | Val | Ser | Leu | Gly | Tyr | Arg | Asp | Asp | Met |  |
|     |     | 130 |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |
| Phe | Ser | Glu | Trp | Thr | Glu | Met | Ala | His | Glu | Arg | Val | Pro | Arg | Lys | Leu |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |
| Arg | Cys | Thr | Phe | Thr | Ser | Pro | Lys | Thr | Pro | Glu | His | Glu | Gly | Arg | His |  |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |  |
| Tyr | Glu | Cys | Asp | Val | Leu | Pro | Phe | Met | Glu | Ile | Gly | Ser | Val | Ala | His |  |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |  |
| Lys | Tyr | Tyr | Leu | Leu | Asn | Ile | Arg | Leu | Pro | Val | Asn | Glu | Lys | Lys | Lys |  |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |  |
| Ile | Asn | Val | Gly | Ile | Gly | Glu | Ile | Lys | Asp | Ile | Arg | Leu | Val | Gly | Ile |  |
|     |     | 210 |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |  |
| His | Gln | Asn | Gly | Gly | Phe | Thr | Lys | Val | Trp | Phe | Ala | Met | Lys | Thr | Phe |  |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |  |
| Leu | Thr | Pro | Ser | Ile | Phe | Ile | Ile | Met | Val | Trp | Tyr | Trp | Arg | Arg | Ile |  |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |  |
| Thr | Met | Met | Ser | Arg | Pro | Pro | Val | Leu | Leu | Glu | Lys | Val | Ile | Phe | Ala |  |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |  |
| Leu | Gly | Ile | Ser | Met | Thr | Phe | Ile | Asn | Ile | Pro | Val | Glu | Trp | Phe | Ser |  |
|     |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |  |
| Ile | Gly | Phe | Asp | Trp | Thr | Trp | Met | Leu | Leu | Phe | Gly | Asp | Ile | Arg | Gln |  |
|     |     | 290 |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |  |
| Gly | Ile | Phe | Tyr | Ala | Met | Leu | Leu | Ser | Phe | Trp | Ile | Ile | Phe | Cys | Gly |  |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |  |
| Glu | His | Met | Met | Asp | Gln | His | Glu | Arg | Asn | His | Ile | Ala | Gly | Tyr | Trp |  |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |  |
| Lys | Gln | Val | Gly | Pro | Ile | Ala | Val | Gly | Ser | Phe | Cys | Leu | Phe | Ile | Phe |  |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |  |
| Asp | Met | Cys | Glu | Arg | Gly | Val | Gln | Leu | Thr | Asn | Pro | Phe | Tyr | Ser | Ile |  |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |  |
| Trp | Thr | Thr | Asp | Val | Gly | Thr | Glu | Leu | Ala | Met | Ala | Phe | Ile | Ile | Val |  |
|     |     | 370 |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |  |
| Ala | Gly | Ile | Cys | Leu | Cys | Leu | Tyr | Phe | Leu | Phe | Leu | Cys | Phe | Met | Val |  |
| 385 |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     | 400 |     |  |
| Phe | Gln | Val | Phe | Arg | Asn | Ile | Ser | Gly | Lys | Gln | Ser | Ser | Leu | Pro | Ala |  |
|     |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |  |
| Met | Ser | Lys | Val | Arg | Arg | Leu | His | Tyr | Glu | Gly | Leu | Ile | Phe | Arg | Phe |  |
|     |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |  |
| Lys | Phe | Leu | Met | Leu | Ile | Thr | Leu | Ala | Cys | Ala | Ala | Met | Thr | Val | Ile |  |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |  |
| Phe | Phe | Ile | Val | Ser | Gln | Val | Thr | Glu | Gly | His | Trp | Lys | Trp | Gly | Gly |  |
|     |     | 450 |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |  |
| Val | Thr | Val | Gln | Val | Ser | Ser | Ala | Phe | Phe | Thr | Gly | Ile | Tyr | Gly | Met |  |
| 465 |     |     |     |     | 470 |     |     |     |     | 475 |     |     |     |     | 480 |  |
| Trp | Asn | Leu | Tyr | Val | Phe | Ala | Leu | Met | Phe | Leu | Tyr | Ala | Pro | Ser | His |  |
|     |     |     |     | 485 |     |     |     |     | 490 |     |     |     |     | 495 |     |  |
| Lys | Asn | Tyr | Gly | Glu | Asp | Gln | Ser | Asn | Gly | Asp | Leu | Gly | Val | His | Ser |  |
|     |     |     | 500 |     |     |     |     | 505 |     |     |     |     | 510 |     |     |  |
| Gly | Glu | Glu | Leu | Gln | Leu | Thr | Thr | Thr | Ile | Thr | His | Val | Asp | Gly | Pro |  |

|     |                     |                     |         |  |     |
|-----|---------------------|---------------------|---------|--|-----|
|     | 515                 |                     | 520     |  | 525 |
| Thr | Glu Ile Tyr Lys Leu | Thr Arg Lys Glu Ala | Gln Glu |  |     |
|     | 530                 | 535                 | 540     |  |     |

<210> 34  
 <211> 755  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 34  
 tctaacgaac cccttcggag cgatggaatg agaaaggccc agaatgtgtt aagtctgtgc 60  
 aggggaagtg tcctgagggg agggctcttg ggagggtcga aggccaggat ggcaaagtga 120  
 aggtagctga gggtgcagtc ttgggtgccc actgctgtgc atctgtcttg ttatctaccc 180  
 ctactttggg ctgacaactg cagggttggg tgtaggctgt ctactgcat gccgggaagc 240  
 tggagaagct ccacgggaac attgagggcc atggctttga gacactgcag agcatccttg 300  
 gtctctgtaa ccacgtcacc taaccctgac aattccagac ccttcttcca ttgtccttgt 360  
 gaaccatttg ggcttatctt tccctcttag tgcgaagggt caaaccaagg gtcagtcaag 420  
 tagatgactg tcaccttggg cctccccaga ctctgctgcc ggggttggga gaccaaagta 480  
 gaaactgcc aacacaggcc ccaggatgag gtctctgttc tgtggacctg ctccccagat 540  
 acaggcctca gacccatagg acgtggccgg tgctcaggga cacccaatcc ccggcctcac 600  
 tccatcgagt actgacttct ttctctagt ccttgggggt ctccatcctt cagttatggt 660  
 atgaagaatc tatgcaaaact gtataagctt ctgctcacca ataaacgctt tatttaaagc 720  
 ttannnnnnn nnnnnnnnnn nnnnnaagcg gncgc 755

<210> 35  
 <211> 30  
 <212> PRT  
 <213> Rattus norvegicus

<400> 35  
 Met Arg Lys Ala Gln Asn Val Leu Ser Leu Cys Arg Gly Ser Val Leu  
 1 5 10 15  
 Arg Gly Gly Ser Leu Gly Gly Ser Lys Ala Arg Met Ala Lys  
 20 25 30

<210> 36  
 <211> 1310  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 36  
 tctagcgaac cccttcgcag aaacccaaag ttacagacca gaccctaccc aacatccagt 60  
 cagcaatcca gctggagaaa cgcttgagat gacaaggac tttcagaagc aagccttgat 120  
 aagacaggaa aagcagaatt ctaataaaga tatgaggaaa aatgacatgg gccttcaacc 180  
 tctgcctgta gggaaggacg cacacagtgc accaggagtg acagtctctg ggaaaaacca 240

```

caaaagaact caggcacctg acaagaaaaca gagaattgat gtttgtctag aaagccagga 300
cttttctaag aagacaaaata cttccaagga gttaaaaatg gcaatggaga ggtcctttaa 360
tccagtcaac ctttccctga ctgtggtgta aaagaaaatg aggacgccct tctctccatc 420
tccccctcct tcttctcctt ccaattgcgt catctgaaat tgaatttcct ctcctcctcc 480
accacctata atgctgtgcc tgaaaaaaat gagtttcctc cctcatcacc cacagagaag 540
tcaagggtcg aacttgagag cctcccaacc ctgcctcttc ctccaccacc aggagatgag 600
aaatctgata aggaatgtct accaaccatcc ctacctcctc cccctcccac agctccatcc 660
caaccagcac atcttctttc ctcctctgtt ctagaacatc acagtgaagc atttttacaa 720
cagtattccc gaaaagaaac cttggactct catcggtctc actcacaggc taaaatccta 780
acaggaaaaat caccaccccc aacactcccc aaacccaaac ttcccgagag aatcaaaagt 840
aagatgagcc aggattcacc aagcgtgtaa ttggaaaagt ctctgtcaga tgtggaaatt 900
aaaactaccc tctcaaaagga tcagaaaagt tcgctggtgg cagaaagccg tgagcacaca 960
gaggccaagc aagaagtatt ccgaaaaagc cttggaagaa aacagctgtc cattagctct 1020
gcaaaactccc tctctcagac agttccagaa atcccagcac ccaaggaaaa acagacagca 1080
ccccttggtta aatctcactc attcccatca ggttcagaac aacaaaagtcc taagccttac 1140
atgagaaaaat ttaagacacc cttaatgatt gcggaagaaa aatacagaca acaaagggaa 1200
gagcttgaga aacagagacg ggagagttct tgccatagca tcatcaaaac agaaacccag 1260
caccgcagct tatcaaannt taaaaaaaaa aaaaannnag cggncgccccg 1310

```

<210> 37

<211> 100

<212> PRT

<213> Rattus norvegicus

<400> 37

```

Met Thr Arg Asp Phe Gln Lys Gln Ala Leu Ile Arg Gln Glu Lys Gln
 1          5          10          15
Asn Ser Asn Lys Asp Met Arg Lys Asn Asp Met Gly Leu Gln Pro Leu
 20          25          30
Pro Val Gly Lys Asp Ala His Ser Ala Pro Gly Val Thr Val Ser Gly
 35          40          45
Lys Asn His Lys Arg Thr Gln Ala Pro Asp Lys Lys Gln Arg Ile Asp
 50          55          60
Val Cys Leu Glu Ser Gln Asp Phe Leu Met Lys Thr Asn Thr Ser Lys
 65          70          75          80
Glu Leu Lys Met Ala Met Glu Arg Ser Phe Asn Pro Val Asn Leu Ser
 85          90          95
Leu Thr Val Val
100

```

<210> 38

<211> 774

<212> DNA

<213> Rattus norvegicus

<220>

<221> unsure

<222> (0)...(0)

<223> n = A, T, C, or G

<400> 38

```

tctagcgaac cccttcgctt tttttttttt tttttttttt ttttcccccc tttcctatct 60
attaatgggg ggaagtatgt ttatgtggga tttatccact tcttttagat tctcctacct 120
gttgatctgt aattattcct agtagtctct tagagtctct agaagcatgc tgttaccgct 180
aatatttcct tttggttttg atcttactta aacatattgt ttccttactc tctttttcat 240
cccagcttgt ctaactgaaa ggccagaccc aacttgatct atccctttaa aacttcatgt 300

```

```

cttggcctgt tgatttctct gctccagggtg tcaccgaagg ggttcgccta gcgaaccct 360
tcgtaacagc caagggtttt gagacagagg tttcaacagc attcctggag gagacacaaa 420
ggacagatga gtcacatgaa ggatgggagg aggggaagggtg gctgttgata ggtattttga 480
gacactctat ttgagtccta cacaacactc cccctcccc ccaaaccatt tttatgtcta 540
ttgacctttc ctctagtcac acagggaaat tcacagttac ctacaaagaa ccactaattg 600
taacaagtca agaggaaact tatttttgat aatgactcat tgaagatgtt ttgaaaattt 660
aaaaataagc tctgttagca gaagtctgtn ngaaaagcan gaaggaantg tttgtttatt 720
anataaataa aaggcggcga ggacaacaaa aaaaaaaaaa aaaaaagcgg ccgc 774

```

<210> 39  
 <211> 65  
 <212> PRT  
 <213> Rattus norvegicus

```

<400> 39
Met Ser Trp Pro Val Asp Phe Ser Ala Pro Gly Val Thr Glu Gly Val
 1           5           10          15
Arg Leu Ala Asn Pro Phe Val Thr Ala Lys Val Phe Glu Thr Glu Val
          20          25          30
Ser Thr Ala Phe Leu Glu Glu Thr Gln Arg Thr Asp Glu Ser His Glu
          35          40          45
Gly Trp Glu Glu Gly Arg Trp Leu Leu Ile Gly Ile Leu Arg His Ser
          50          55          60
Ile
65

```

<210> 40  
 <211> 1259  
 <212> DNA  
 <213> Rattus norvegicus

```

<400> 40
tctagcgaac cccttcgcga aggggttcgc cgaaggggtt cgcttcagga gttaatgtag 60
acttgactta agcatcctga tttaaccaag aatggtggca cacaacttta acccccatgc 120
tggggaagca gaggcacact taatctgtgt gagtcccagg ccatccaggg ataccgtagt 180
agtgagaccc tgtctcacia aacaaagaat ggggaatttag ggctggtggg gctcagcatg 240
caactgtgcc tgttacctag tctggcctga gttcaattcc caagactcaa tgtatgagga 300
gagaaacgat ttctgaactc attcattgat ctccaaatgt gtggtatagg tgcccttccc 360
ttaaataaaa caaacaacaa aaaaacaaca aaaacaacaa accccaata aatgtatatt 420
taatttttaa agactgtact tgggcatggt acttcacatc tacagttacg acattctaga 480
ggctcaggcc tgggaattgc tatgaatttg aggccagtct gggttagagt gacttctcat 540
ctaggcagga ctacgtaata agtctttgcc caaaaataaa cagcaacca aataagagca 600
acaagaattc tccctccaaa tagtaacctg ggcttgaga gacagcttag caactgagt 660
cttgccgagc catcgaggac tggagtctgg attccagcac ccgtgtgaca gacaagctgg 720
gcgttcactc atgctgatga accccaaggc tgaggagaca ctgactcttc tctggccctg 780
ttcatgctgt ccacaggtgc ccaagtagca gttaagtaga ctgtcagaca acatggctgg 840
ctttttaagc aagaacagta actgaagaaa tacacttttg aagtactgtt aattttgctt 900
aaaacttggg agggagctgg aggatggctc agtggttaag agcactgact gctctccag 960
aggtcctgag ttcaattccc agcaaccaca tgggtggctc caaccatctg taatgagct 1020
tgatgccctc tttttggtgt gtctgaagac agcgacagt tactcatata aaataaaaata 1080
aatctttttt ttttttaaaa gaaatttgct agagatatgg caggaagggt atatttttac 1140
ctattttac tgggggctaa tcctgggtatt tttttcaaaa ttaagatact atataggagc 1200
cgcgaagggg tcgctaggcc agtgtgatgg atatctgcag aattcgggtta gccgaattc 1259

```

<210> 41  
 <211> 42

<212> PRT  
<213> Rattus norvegicus

<400> 41  
Met Val Ala His Asn Phe Asn Pro His Ala Gly Glu Ala Glu Ala His  
1 5 10 15  
Leu Ile Cys Val Ser Pro Arg Pro Ser Arg Asp Thr Val Val Val Arg  
20 25 30  
Pro Cys Leu Thr Lys Gln Arg Met Gly Ile  
35 40

<210> 42  
<211> 777  
<212> DNA  
<213> Rattus norvegicus

<400> 42  
tctagcgaac cccttcgtct cctcttaaac atcttaagac aagctgttat catctacact 60  
gctcttagta ctgttctttt ctaagattct tctaatatga cacattaaga ctttcttaaa 120  
atgtacaact gctacgctga tctaaacatt caaagtgac acatttcgct atgaagccac 180  
gtgaccagag tcctggggac taatttctgt cttagtcaga ttcctattgc tatatgaaga 240  
aataccatga tagtgtcaac ttttataaag aaaaagtatt cctttgggaa tagtttaaag 300  
gatcagaggg ttagtgcatc atcatcacag caggaagcgt ggcagtggga gccagattt 360  
ctatatccag attttcatga agcatgacga gagctcctgg gcctggcgcg agcttctgaa 420  
acctgaaaagt gacatatctt ttccaataag gccacaacta ctgctataag gccacatctc 480  
ctaaactgtg cactatctat gagcctgtac agtctatttc ttttacacca ctgcatcatc 540  
taagagctga taccgcgttaa gttagtcag aaaatattca acttctaggg ttctgttttc 600  
ttctctataa aatattgaaa atgataatta atgtatactt tacagaactg tatttgaagt 660  
acaacttgat ggacataaat caccacagtt gggtcaaaat tgtatatata tatatatata 720  
tatatatata tatatatata tatcaaaaaa aaaaaaaaaa aaaaaaaaag cggccgc 777

<210> 43  
<211> 46  
<212> PRT  
<213> Rattus norvegicus

<400> 43  
Met Ile Val Ser Thr Phe Ile Lys Lys Lys Tyr Ser Phe Gly Asn Ser  
1 5 10 15  
Leu Lys Asp Gln Arg Val Ser Ala Leu Ser Ser Gln Gln Glu Ala Trp  
20 25 30  
Gln Trp Glu Pro Arg Phe Leu Tyr Pro Asp Phe His Glu Ala  
35 40 45

<210> 44  
<211> 1378  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> unsure  
<222> (0)...(0)  
<223> n = A, T, C, or G

<400> 44

|            |             |             |            |             |            |      |
|------------|-------------|-------------|------------|-------------|------------|------|
| tctagcgaac | cccttcgtac  | atttcaccct  | agaaataaat | agaccttcta  | gctctgacag | 60   |
| aaagtagtgc | ttgcctagga  | ggagctgggc  | tggccagttc | ctccttcttg  | cacacttagc | 120  |
| ctgtttgctg | aaggcttggt  | tcaatggaaa  | actgaaatgg | accactaat   | gtctcgattc | 180  |
| ttctctcctt | cactaagtct  | gtgaagtcac  | cagcgttttg | tcttttggtg  | gtgaataccg | 240  |
| aggagaattt | cctcaccag   | tgccttcagg  | agccatgatg | gctgcctcag  | aataagcaca | 300  |
| gatacacttg | agcaactggt  | gcagaaaacc  | cgacttctaa | attattaagg  | aacaggataa | 360  |
| ttgcttggtt | caataattag  | aataatgtaa  | ttaggataat | tgctttttaa  | aaatcttccc | 420  |
| acctttcccc | ccccaaatat  | taataattcc  | aactaaatcc | tctggggccc  | ttccagtttc | 480  |
| cacaacggaa | agagcctaac  | gtattctaaa  | gactgggcat | attttttttt  | tccagattag | 540  |
| tgagtgttca | tgagctatta  | agaggccaag  | tgttttttca | agatggtgtc  | atttcattct | 600  |
| aacatatcta | acatgcaaa   | gacttaaaaa  | aataatttgc | aaaataatct  | gtttcaagtc | 660  |
| tatgaggaag | ctgaagagcc  | tactccggag  | gaaactccag | aagagcctcc  | tagcatagag | 720  |
| gaagaagaga | tagtgaggga  | agaggaggag  | gaggaggtgc | ccccgcccag  | aggtacagcc | 780  |
| gctttgatga | gttcagcatt  | ccaaagcctt  | ggtgctgctg | gaccctactc  | attagccata | 840  |
| tactttcctg | gaagcacagc  | cacgaggcct  | ggagggtgca | cactcgtaat  | gactggagct | 900  |
| ttgtgggcct | ttcctttccc  | ctaaccgttc  | ctccttcccc | gcaatctgac  | cataaatgag | 960  |
| gagatttttt | ttttctctta  | ctacactttt  | tgcaatccta | gtttgcaatc  | ctcagtgtgg | 1020 |
| ctggctttca | gttcaaatgc  | tggagaacca  | tgtatctgtg | tggtgagagc  | attcattttc | 1080 |
| aagactaatt | cttaaaccgc  | ttatccccgg  | agacagaaac | cgtaggcagag | ttgctatcct | 1140 |
| ctgagctggg | gtggctcatga | tgatcagtta  | ggttactaac | atcttcctaa  | atgaatcggt | 1200 |
| gttttggtgt | gctctgtttt  | catttggtatg | acagggtgtt | gttctgttta  | atgcgtgtgg | 1260 |
| gtttttccaa | catgtccgta  | aaaatatctt  | ttaagcacca | gangtagtga  | agaaagctgt | 1320 |
| gcaaacagca | cccgtcctg   | tccccaagaa  | awccgaggcg | ccccccaaa   | ggtatatc   | 1378 |

<210> 45

<211> 1554

<212> DNA

<213> *Rattus norvegicus*

<220>

<221> unsure

<222> (0)...(0)

<223> n = A, T, C, or G

<400> 45

|             |            |            |             |             |             |      |
|-------------|------------|------------|-------------|-------------|-------------|------|
| tctagcgaac  | cccttcgcga | accccttcgc | tgcacacctca | taaagctacc  | tcaagacaga  | 60   |
| gcgtaactgc  | ctcattctag | gagtggactc | ggggaagaca  | gcagacacac  | catcaggag   | 120  |
| cccctgggta  | tctccagaac | atggcaagcc | gtggatacct  | gcatcacctg  | ctgactgcag  | 180  |
| aggagcctg   | ggaggagttt | gtatcaaagg | ccaagttgcc  | cagggatagg  | gcagtggccc  | 240  |
| tccacaaagc  | actgagggat | ctgacagcac | tcttggccat  | agcagaaaga  | ggcagatctc  | 300  |
| ggaaaggctg  | gaaaggcaag | gagaagtgtg | tgaaagcatt  | tccttgcttg  | aaagcagact  | 360  |
| tggaggagca  | catcagccag | ctctatgccc | tagccgacca  | tgctgaggaa  | ctgcacaggg  | 420  |
| gctgcaccgt  | ctccaacatg | gtggctgact | ccttcagtgt  | tgccctccgac | atcctgaaca  | 480  |
| tctttggtct  | ctttctggca | cctgagtcag | cagaggggaag | tctggtgctc  | tcggcagcag  | 540  |
| gcttggggct  | gggggtagca | gctactgtga | ctaattgtgc  | tacttcaatc  | atgaaggaaa  | 600  |
| caagcagggt  | tttgatgga  | gtcgaagctg | gtcaccatgg  | ttcaaccgcc  | atggatatac  | 660  |
| tggaggaagc  | tggcacaagt | gtggctagga | ttgccagcga  | gatccctcag  | gctaccagag  | 720  |
| atatcaccag  | agacctggaa | gcccttgagc | agccatgaa   | tgccctcagt  | ctggctcagag | 780  |
| ccaaccctcg  | cctagaagaa | gatgccaggg | ccctcatcaa  | tgcaaggtagc | atccctgccc  | 840  |
| aacgggctaa  | acagggtgcg | gccagtctga | aaggaaaccc  | tctggcaatg  | agcaagggaag | 900  |
| accggatccg  | cagtgccacc | accactgggg | tcaccctctt  | gcgtgatgtg  | gggagccttg  | 960  |
| tgaacgagtc  | gaagcagttg | tacgaagggt | ctgcttccga  | atcggcagca  | gcactaagga  | 1020 |
| agctggctca  | ggagctggag | gagaagctag | gggagctcat  | gaaattctac  | gagacaatct  | 1080 |
| gatcagggtt  | cagccagtca | ccccatcccc | aagacatgca  | gacatcangg  | gagaggatct  | 1140 |
| ggacagaggt  | agggaccatg | gaggtgctgt | tagaaggaga  | gcaagactac  | agtcagggtc  | 1200 |
| gaggacata   | gtgtggaggc | ctgtttgatg | aacacarcag  | gttaraggat  | ggagcagtg   | 1260 |
| atcaaaagtga | gatccactgg | agcctgagac | sagggaccag  | aggatgtgct  | gcaagaggga  | 1320 |

```

ctgggaaaaat tgaaatctan actaaacatg gaaaaaaggc agtttcgaaa gactagaaaa 1380
ccctcccat ctgagccatt ggaaacccca caaaacacaa accagagaga aaagtgtgtg 1440
ctctctaaac aagtcgtggc cccagttcc ccagcccact cccaccctca ggggtggcat 1500
caaataaatt gtttccattt caaaaaaaaa annaaanaaa aaaaaagcgc ccgc 1554

```

```

<210> 46
<211> 313
<212> PRT
<213> Rattus norvegicus

```

```

<400> 46
Met Ala Ser Arg Gly Tyr Leu His His Leu Leu Thr Ala Glu Gly Ala
1      5      10      15
Trp Glu Glu Phe Val Ser Lys Ala Lys Leu Pro Arg Asp Arg Ala Val
20     25     30
Ala Leu His Lys Ala Leu Arg Asp Leu Thr Ala Leu Leu Ala Ile Ala
35     40     45
Glu Arg Gly Arg Ser Arg Lys Gly Trp Lys Gly Lys Glu Lys Phe Val
50     55     60
Lys Ala Phe Pro Cys Leu Lys Ala Asp Leu Glu Glu His Ile Ser Gln
65     70     75     80
Leu Tyr Ala Leu Ala Asp His Ala Glu Glu Leu His Arg Gly Cys Thr
85     90     95
Val Ser Asn Met Val Ala Asp Ser Phe Ser Val Ala Ser Asp Ile Leu
100    105    110
Asn Ile Phe Gly Leu Phe Leu Ala Pro Glu Ser Ala Glu Gly Ser Leu
115    120    125
Val Leu Ser Ala Ala Gly Leu Gly Leu Gly Val Ala Ala Thr Val Thr
130    135    140
Asn Val Ala Thr Ser Ile Met Lys Glu Thr Ser Arg Val Leu Asp Gly
145    150    155    160
Val Glu Ala Gly His His Gly Ser Thr Ala Met Asp Ile Leu Glu Glu
165    170    175
Ala Gly Thr Ser Val Ala Arg Ile Ala Ser Glu Ile Pro Gln Ala Thr
180    185    190
Arg Asp Ile Thr Arg Asp Leu Glu Ala Leu Glu Gln His Met Asn Ala
195    200    205
Leu Ser Leu Val Arg Ala Asn Pro Arg Leu Glu Glu Asp Ala Arg Ala
210    215    220
Leu Ile Asn Ala Gly Ser Ile Pro Ala Gln Arg Ala Lys Gln Val Arg
225    230    235    240
Ala Ser Leu Lys Gly Thr Pro Leu Ala Met Ser Lys Glu Asp Arg Ile
245    250    255
Arg Ser Ala Thr Thr Thr Gly Val Thr Leu Leu Arg Asp Val Gly Ser
260    265    270
Leu Val Asn Glu Ser Lys Gln Leu Tyr Glu Gly Ser Ala Ser Glu Ser
275    280    285
Ala Ala Ala Leu Arg Lys Leu Ala Gln Glu Leu Glu Glu Lys Leu Gly
290    295    300
Glu Leu Met Lys Phe Tyr Glu Thr Ile
305    310

```

```

<210> 47
<211> 1142
<212> DNA
<213> Rattus norvegicus

```

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 47  
 tctagcgaac cccttcggct ttttctgatt taaagtgaag aaatggccat atttgcttga 60  
 taatcttcag ttgtgtctct ggaactcaac aaagaacgca ttttatgaaa tatacagctg 120  
 tcttcggtaa agccaacttt cttacacata tttcgggaag taattaacta caatttggac 180  
 ttatagttac aaggttgcct tcgaaacact gctctaaatg tgtctcgtgt tggggtgcta 240  
 ctttgcttat gtgtaaattt cacagtaatg caatagagaa aggggtgttg tgggtgtggc 300  
 ttgtgggggg gattgttttg ttgttgttgt ttgagataaa gcttcattct gtagccagga 360  
 aagcctggaa tttactgtgt catcccaggt agcttcaaac tgggtgcctat cctgcctcag 420  
 cctccaactg gttgcaattg caggagtaac ctaccacatc ctgcagctac agtgatctag 480  
 aacctccccg tcgaagcccc accaccatag aaaccaattt gcattaagtt ttagaattcc 540  
 caaccacaact aaagtttaat aaaaaaagaa aaacaaaaca agattttaa atctctttcc 600  
 ctcatctttt tttnagatnc agggctcncc tagttttnaa caaaacagtn ngcagngnng 660  
 ggnnccccng gnggggnttt tttncnttgn gccnctnngc ancccccccn cccaggcnng 720  
 atngggnggg gtataaaagt nttancnggc anatgnnctn ggngcanacc caagtntatc 780  
 agnccctnan ttncnccca ganaactaga nanctntngc atagtana ng cccntgtgn 840  
 agatttnaaa ncnctctgt caccaganana gaantctana tagaaaantc aaaatatttn 900  
 ggngcccaan gttncacc ctgtagagng ggncccaaaa ancngcncc aganagcnng 960  
 atatntgagt tntgacctnt attctttact acnacgntt gagagaatat tntgntggg 1020  
 ccctanccac atgttttgnc ccaagantgt aaanccactt naannctgng ggatatctcn 1080  
 ctgcanacag aagtgccng cggtatttta aaaaaaaaaa taaaaaaaaa aaaggngccn 1140  
 cc 1142

<210> 48  
 <211> 502  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)  
 <223> n = A, T, C, or G

<400> 48  
 tctagcgaac cccttcgtgg agactgtgga agttatgtat gaataggaga gtgtgtgttg 60  
 tgtaacacag acagaaggac attggatcat gttgaaccg caccaccaac tatgagtgat 120  
 ggtatggaaa gaatgcgaac atttaaaactg cgccaatgcg gcggccatct tgggtggagaa 180  
 gttcctagcc gagctttgat gtgatttttt tgatggtaca atgcagcgag catggccacg 240  
 ggagctttga atccagccga cagctccgag atttgccctt ccagtgcctt tgcctaccgt 300  
 agagaggact gctgagatgg gattccttgt gacaagccta cttaccttta actgccagca 360  
 tttgtaagggt gcaatcttgt gtattgggtt tttattttga cagttttgaa aacatgtttg 420  
 ntgntcttg tggtttttcca gtaaaagtaa tcacaaagga aaaaaaaatt aaaaaaaaaa 480  
 aaaaaaaaaa aaaagcggcc gc 502

<210> 49  
 <211> 1426  
 <212> DNA  
 <213> Rattus norvegicus

<220>  
 <221> unsure  
 <222> (0)...(0)



<223> n = A, T, C, or G

<400> 49

```
tctagcgaac cccttcgcct tcatatgggt ttacactgta tgcattctcac cgcggcccgg 60
aacctttctt ctcatcccaa tcctgtttga ggggacgggg ggcagggacg gacaacccaa 120
gacaagggat atttgtgctg tgggtattgc atcttatgga gggctgtagc taactgggac 180
tcctgggtga cccaacagg cctttgatcc tctgtctctc cccgcttgat ctttcttacc 240
ttatgcttcc ccaagtgcag ctgaggggact acacagtggc tcccggccca ctccaaacac 300
aggaaatcaa tctcagggag aggagataag aagtgaggag aagccaagat tcaaccaata 360
gatggtaatt gtcctcggga ccgccccccc aagcatcatt tccataggaa ggactgagtt 420
tggtcctga agcccagtgg agtacctttc tctgcctgaa ttctgtttgt atccctggcc 480
aagtcctctt tccagaaacc ccacctttaa aaccagctga gaaggacctt cttctctatg 540
tttaaatagg aactttccat agcttagctt ccctgcagtc tcccagtgct ccagttaaaa 600
ttctgccata ggtcaaaagt ggggttgaga ggtgaagtca gaggccatgc atggagctca 660
gaacgtttct aaacctcctg tgattcattg agtagccct agactctaga aggctcagat 720
gccaaaaagg ktgactttat aatttcttag ggtcttctca tgggatcgkt ttcagagtgg 780
gcattcacta aatgatagca agtttattaa ttgtttccca gygcctgac tctttatttn 840
cccagggtct ccaaccagag cccttgggtg aaagtctccc acccaccccc caccctgaga 900
cttgggtgnt ttctgagatt ccccagggat ggcaaaattg gcattcttac agggagccct 960
gacttctagc acgttaccta gattttttac cctgctctct ctgcctattt tactatggga 1020
tactgntct ctttggactt aaggaaccac cttgaagtag agtgagggtga ccacgtgttg 1080
gtggcgaaga atataagcat tggtccttaa aagagaactt ctatgaagtc aggctgcaag 1140
ctttaacatg gcacaagttg caccttactg gctgctaagt ctggatgtca accaaaggct 1200
aactctntaa ttaaagaaaa gcaagggaga aganaagggt aagnggcttn cataaacttt 1260
attcaaaatg tctaccagga atggtggtga caccaataat cccacatggt ggatgtngag 1320
gcaggaaagaa tgatggtaag gggcatcctc actacataat gagttgaggg tngactaggt 1380
taactntgct tnaaaaaaaaa aaaaaaaaaa aaaaaaaagg gnggcc 1426
```

<210> 50

<211> 985

<212> DNA

<213> *Rattus norvegicus*

<400> 50

```
tctagcgaac cccttcgcaa gaactcagac tgctcctgcc tgacttccta ggtgtcatag 60
ctctcttctg ccgccagtat gacatcatca aggacaacga gccaataaac aacaaggaaa 120
aaaccaagag tgcattcagag accagcaccc cagagcacca ggggtgggggt ctcctccgaa 180
gcaagatatg aaacctttc agtgcttgct ctgagcagct cagaagtaga atgcgagagg 240
acctcactgt tctgacgatg attgtccaac acacatccgg ccctctccgt gtctcctccc 300
accaccatct tctcctatca ccgggcttac tatcttctct cctggctttc ctctttctga 360
tggcggttcc tgaagcctcc aactaaccac taactcgggg agcgcctcga cagtgtttgt 420
ggctaaggct acactcagag acagagttgc agaagtaggg agaccagcc cgagggacgc 480
cattgctggg aggtagactg ggtgcgagg cccttggcac aggactcaca tctgggctgt 540
tcagcttgac ccgaaggctg tgtgtgaaag ggggaaaaag acaagattgc caggcagggc 600
tgttgttttt gtggcttcga gggacaagaa cctggctaaa aggcagcagc cctgctgttc 660
ttttctcct ctgtcctgtt tcctacctta caagaagtcc atgcaacca cgggggctct 720
ggcacttttc ttgtttattt ccctcctggc ttccaaacaa gccctctgtg gacatcatca 780
aagcatggat aacccctct gcaggggtgg gcttcattct ccgctggctc ctgtagcctt 840
cctggacaca ggtgaaagt tgtaaaagt gtaggagtg agtagccac aggttctcct 900
tttccatct cagtctgacc aaggaggctg aactaccaac ccaaattcag cgaaaaaaa 960
aaaaaaaaa aaaaaaagcg gccgc 985
```

<210> 51

<211> 58

<212> PRT

<213> *Rattus norvegicus*

<400> 51

Met Thr Ser Ser Arg Thr Thr Ser Pro Ile Thr Thr Arg Lys Lys Pro  
1 5 10 15  
Arg Val His Gln Arg Pro Ala Pro Gln Ser Thr Arg Val Gly Val Ser  
20 25 30  
Ser Glu Ala Arg Tyr Glu Thr Leu Ser Val Leu Ala Leu Ser Ser Ser  
35 40 45  
Glu Val Glu Cys Glu Arg Thr Ser Leu Phe  
50 55

<210> 52

<211> 2010

<212> DNA

<213> Rattus norvegicus

<400> 52

tctagcgaac cccttcgcgg ggacagacat ggagaaggag atggaggacc ccctggctgg 60  
agcagaccaa cagaataggc aactatggct ggagaaccgg gtatcagagt aatgcttgac 120  
ctcgggaaac accaaatttc ttcttccgat cgcagaagta gtactcggcg aaattcacta 180  
ggtaggagc tcctcatctg ggaagaaccg gtgcctgggg ggacctggct ggataggtat 240  
gggggatcga ggccgggtccc ctagtctccg gtccccccat ggagtcctc caactctaag 300  
caccctcact ctctgctgc tcctctgtgg acaggctcac tcccagtgca agatcctccg 360  
ctgcaatgcc gagtacgtct cgtccactct gagccttcgg ggagggggct caccggacac 420  
gccacatgga ggccggccgtg gtgggcccgc ctcaggtggc ttgtgtcgcg ccctgcgctc 480  
ctacgtctc tgacgcggc gcaccgccc caccctgccg ggggacctcg ctttccactc 540  
cgcggtgcat ggcatagagg acctgatgat ccagcacaac tgctcacgcc aggggtcccac 600  
ggcctcggcc ccggcccggg gtcttgccct gcccggggcc ggcccagcgc ccctgacccc 660  
agatccctgt gactatgaag cccggttttc caggctgcac ggtcgaaccc cgggtttctt 720  
gcattgtgct tcctttggag acccccattg gcgcagcttc cacaatcact ttcacacact 780  
ccgctccaa ggagcttggc ccctactaga taacgacttc ctctttgtcc aagccaccag 840  
ctccccgta gcatcgggag ccaacgctac caccatccgg aagatcacta tcatatttaa 900  
aaacatgcag gaatgcattg accagaaagt ctaccaggct gaggtagaca atcttctgc 960  
agcctttgaa gatggttctg tcaatgggg cgaccgacct gggggctcga gtttgtccat 1020  
tcaaaactgct aaccttggga gccacgtgga gattcgagct gcctacattg gaacaactat 1080  
aatcgttcgt cagacagctg gacagctctc cttctccatc agggtagcgg aggatgtggc 1140  
acgggccttc tctgctgagc aggatctaca gctgtgtgtt gggggatgcc ctccgagcca 1200  
gcgactctct cgctcagagc gcaatcgccg tggggcgata gccatagata ctgccagaag 1260  
gttgtgtaag gaagggcttc cggttgaaga tgcctacttc caatcctgcg tctttgatgt 1320  
ttcagctctc ggtgaccca actttactgt ggcagctcag tcagctctgg acgatgcccg 1380  
agtcttcttg accgatttg agaacttgca ccttttccca gtagatgcgg ggcctcccct 1440  
ctctccagcc acctgcctag tccggcttct ttcggtcctc tttgttctgt ggttttgc 1500  
tcagtaagta ggccagcaac ccgtgactag tttggaaacg gtttgaggag agaggttgat 1560  
gtgagaaaac acaaagatgt gccaaaggaa acagtgggga caggagacaa cgaccttact 1620  
caatcacacg aggttgcaat ccagggtga aatgacccta gaataaagat tctgagacag 1680  
ggttttgca tccagacctt ggtatgggt ccccatgaat tccccatta gtgatttccc 1740  
acttgtagtg aaattctact ctctgtacac ctgatatcac tcctgcaagg ctagagattg 1800  
tgagagcgt aagggccagc aaaacattaa agggctgaga tatcttaaag gcagaaacta 1860  
gaaaagggga aaccatgatt atctataaga aaatcaaaag aggggtttgg gaatttagct 1920  
cagtgttaga gcacttgcct agcaagcgca aggcctggg ttcgggtccc agctcctaaa 1980  
aaaaaaaaa aaaaaaaaaa aagcggccgc 2010

<210> 53

<211> 422

<212> PRT

<213> Rattus norvegicus

10

[illegible]

<210> 54  
<211> 705  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> unsure  
<222> (0)...(0)  
<223> n = A, T, C, or G

<400> 54  
tctagcgaac cccttcgtgg ggattaaggt tctctatagc taagcctgtc ngaatgacaa 60  
caccagagaa tctcacctgg ggtggtggga gcactctctg tcttgaggga acatgtacct 120  
actctctcct tccacaagag ccacatacac ttagaagttc cagtgaagat ctatgtgctt 180  
cagaagagag gggacttgga ggtgaaaggg ggagtgggag gggggcttga ggacctanct 240  
gaaagatttt angctgaaaag aacttccttg attcaaagac atatgtcagt ngacccaaca 300  
atgagaatga atatgagggc caggaaaact tgtgggaatc agtctcaaga cngaaacnga 360  
gaaagaaaaga aaagtggnta ggactcanat tggggaacct gggtagacag gagtggcnag 420  
ggaagaaaagg gatcttgggt tntccacagt ttgagacaca tccggngntc gacctatttc 480  
ccngaagccn kannanatgt tgcttccccn tcnntnnaat gggcctggng gtcctnctcc 540  
ctttncctng gacatgaaaa ngntttctgc nnanataacc cccntctttc ctcccccttn 600  
antntgtccc tacntttttg tccctttttt ttttnaaaaa annaaaataa aggggncnn 660  
tnttccttn gaaaaaaaaa aaaaaaaaaa aaaaaaccgc cnc 705

<210> 55  
<211> 58  
<212> PRT  
<213> Rattus norvegicus

<400> 55  
Met Thr Thr Pro Arg Asp Leu Thr Trp Gly Gly Gly Ser Thr Leu Cys  
1 5 10 15  
Leu Glu Gly Thr Cys Thr Tyr Ser Leu Leu Pro Gln Glu Pro His Thr  
20 25 30  
Leu Arg Ser Ser Ser Glu Asp Leu Cys Ala Ser Glu Glu Arg Gly Leu  
35 40 45  
Gly Gly Glu Arg Gly Ser Gly Arg Gly Ala  
50 55

<210> 56  
<211> 968  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> unsure  
<222> (0)...(0)  
<223> n = A, T, C, or G

<400> 56  
tctagcgaac cccttcgcga aggggttcgc ttacattcac gcttaagcat attaaactgta 60  
catattaact gatttagagg atactatgga ttccacatct tccctgagca tagggattga 120  
tttgaaaaat gacagggttg gctgtcgacc cccatcggag gaagcaggta aggaatcact 180  
taggagaact gatctcaaca ttcttcagtt ctttctatta tttacttggt tagcctggag 240  
ttaaattccc actccttggt agcacttcta atttgaaaat ccactttctt caatattttc 300  
gaaatttaaa actgatggat gacgtgacaa aacttcacg agttaagaat tctccacctc 360

```

tgatctcatc gcagcagggc acaatccaag gcatgtgaat tgacttccag gtttatgtga 420
catataaatg aattctgtct ctagatttgg atccccattct cctaaatatac tcaccatgca 480
tgtgcagata ttctaaagtc taaaaatatc tgatattgca aacttttctg gtcaaaacat 540
tttgatgag ccatttaaca gccaaggtat ttgagacaga ggtttcaaca gcattcctgg 600
aggagacaca aaggacagat gagtcacatg aaggatggga ggagggaaag tggctgttga 660
taggtatttt gagacactct atttgagtcc tacacaacac tccccctcc cccctccccc 720
ccaaaccatt tttatgtcta ttgacctttc ctctagtcac acagggacat tcacagttac 780
ctacaaagaa ccagaattgt aacaagtcaa gaggaaactt atttttgata atgactcatt 840
gaagatgttt tgaaaattta aaaataagct cttgtaagca gaagtctgtg agaaaagcaa 900
gaaggaattg tttgtttatt aaataaataa aaggcnmann nnaaaaaaaaa aaaaaaaaaa 960
gcggccgc

```

<210> 57

<211> 52

<212> PRT

<213> Rattus norvegicus

<400> 57

```

Met Asp Ser Thr Ser Ser Leu Ser Ile Gly Ile Asp Leu Lys Asn Asp
 1             5             10             15
Arg Val Gly Cys Arg Pro Pro Ser Glu Glu Ala Gly Lys Glu Ser Leu
      20             25             30
Arg Arg Thr Asp Leu Asn Ile Leu Gln Phe Phe Leu Leu Phe Thr Cys
      35             40             45
Leu Ala Trp Ser
      50

```

<210> 58

<211> 1183

<212> DNA

<213> Rattus norvegicus

<220>

<221> unsure

<222> (0)...(0)

<223> n = A, T, C, or G

<400> 58

```

tctagcgaac cccttcggca gacagcatcc ctcccaaggc tactcagggt ttaaaccctg 60
cttctgaagt gacatgtcct gcaaagaaag tccccacgtg ggtgtttcca ccaccactgt 120
cagctctgta gctgtgcaag ctggggactc caagatcgtg atagccgttg tcaagtgttg 180
caaatgggtg cggtctccaa tggtctgagg acagcccaat ctctagaaa ttgggagcag 240
tcaagatgaa accagaaaac tgcttcacga tcacgagctc cttctggcca agcttaaggc 300
cttggaagat cgtgtgtggg gactcttaca ggaagcagac aggacggctg aagcaaacia 360
ggagcaaatg gaggtgtcga tgccatggcc agactctggg cgaagcatgg gccaccctgg 420
tcttcatgct tgaaagaaga agggagctcc tcggactgac atctgagttt tttcaaagcg 480
ccttgagatt tgctataaaa atagaccaag ctgaagattt tctgcagaat cctcacgagt 540
ttgagagtgc cgaagcctta cagtcacttc ttctgcttca tgaccgacac gccaaagaac 600
tcttagaacg atctctagtc cttttaaaca aaagccaaca actcactgac ttcatagaaa 660
aattcaagtg tgatggatct cctgtgaatt ctgagctcat ccaggagct cagagcagtt 720
gtctgaagat cgacagcctc cttgaacttc tgcaagacag gagaaggcag ctggacaagc 780
acttgcagca acagaggcag gagttgtctc aggttctgca gttatgtctg tgggaccaac 840
aagaaagcca ggtttcttgt ttggtttcaga aaacaataag agatctgcag gaacagagtc 900
tgggttcac cctttcagac aacaaagagt taatccgtaa gcacgaggac ctgccatcaa 960
agcaaagagt ccctgcagtt taggaattga acagaacagt ttcctgattg aatgatcttg 1020
gcgcctyytt ancggntgca gatggtgggg cttcctctgg nttctcatcc tcttccacta 1080

```

atctggattt ttgttcccct ggtgtgccac atcacttttaa tttgaaagaa aaaaaataaa 1140  
 ttgggccgga aaaaaaaaaa aaaaaaaaaa aarrrrscgc cnc 1183

<210> 59  
 <211> 245  
 <212> PRT  
 <213> Rattus norvegicus

<400> 59  
 Met Lys Pro Glu Asn Cys Phe Thr Ile Thr Ser Ser Phe Trp Pro Ser  
 1 5 10 15  
 Leu Arg Pro Trp Lys Ile Val Cys Gly Asp Ser Tyr Arg Lys Gln Thr  
 20 25 30  
 Gly Arg Leu Lys Gln Thr Arg Ser Lys Val Arg Cys Arg Cys His Gly  
 35 40 45  
 Gln Thr Leu Gly Glu Ala Trp Ala Thr Leu Val Phe Met Leu Glu Arg  
 50 55 60  
 Arg Arg Glu Leu Leu Gly Leu Thr Ser Glu Phe Phe Gln Ser Ala Leu  
 65 70 75 80  
 Glu Phe Ala Ile Lys Ile Asp Gln Ala Glu Asp Phe Leu Gln Asn Pro  
 85 90 95  
 His Glu Phe Glu Ser Ala Glu Ala Leu Gln Ser Leu Leu Leu Leu His  
 100 105 110  
 Asp Arg His Ala Lys Glu Leu Leu Glu Arg Ser Leu Val Leu Leu Asn  
 115 120 125  
 Lys Ser Gln Gln Leu Thr Asp Phe Ile Glu Lys Phe Lys Cys Asp Gly  
 130 135 140  
 Ser Pro Val Asn Ser Glu Leu Ile Gln Gly Ala Gln Ser Ser Cys Leu  
 145 150 155 160  
 Lys Ile Asp Ser Leu Leu Glu Leu Leu Gln Asp Arg Arg Arg Gln Leu  
 165 170 175  
 Asp Lys His Leu Gln Gln Gln Arg Gln Glu Leu Ser Gln Val Leu Gln  
 180 185 190  
 Leu Cys Leu Trp Asp Gln Gln Glu Ser Gln Val Ser Cys Trp Phe Gln  
 195 200 205  
 Lys Thr Ile Arg Asp Leu Gln Glu Gln Ser Leu Gly Ser Ser Leu Ser  
 210 215 220  
 Asp Asn Lys Glu Leu Ile Arg Lys His Glu Asp Leu Pro Ser Lys Gln  
 225 230 235 240  
 Arg Val Pro Ala Val  
 245

<210> 60  
 <211> 1051  
 <212> DNA  
 <213> Rattus norvegicus

<400> 60  
 tctagcgaac cccttcgctc aagatggccg cttcccagac cgctccgctg catcttcaag 60  
 atgcgcgaga agaactgca atctcgcgag atcaggctcg ctgcgaggca gtctgctcgc 120  
 agcctaccct tcctaggagt tggaggagg aaagctagat tcgattaaga gcaaaaaatt 180  
 gttccagcag cagagcagct gtccaaggaa gtatccaaag gaactgcacc tcagtaaaact 240  
 cctggcaagt cttaggatat gacaaagggc acaggatgca ttatgagaaa ggaaggctaa 300  
 ggttttcaag aacacagatt tacatcaaac ttgcgttctg aattaatctt tgagaataact 360  
 ggactgtgag ctagacattg agtaagaggt ttgttatatc aagaatgtga tctaaaaaaa 420  
 aaacattcat atcttcctcc cacaagagga tattttgaaa ctgtgggtca aagtcagact 480

```

acaggagagc cctcaaatat gccaaatgtg acagacagca ggattttgaa aatatagtg 540
gagtatgtga agatgttcca gtcaaagaga cattgtttcc aaaggaaaga aagtcagtc 600
gcctcacagg aattgtgtat tccctggtag taatgcaa at ggaccacata tggctttctt 660
ctttaaagag aataccta at tttagctaca gagtaaaatg ctgatgatac aaaccgtgac 720
aagtggaggg acaagaaagt aaatggactg atgggtgccat tgtggactgg gagggtaaaa 780
gctgtacatt tgtgaacaaa aagatttcct tggttatggc agccatgatt ctaactgcta 840
aatggaggca gtaacaacat gacctaaaaga gtaaacatcc agagatggaa tgttctcaat 900
gtctgaaaag gagcagatat ctggtgtatg tgaatgtatg ctagagattt tttaacaagcc 960
tgtggtgaat tagtaattgt attttatattt gaaagttaaa caggtaatta gaaaccccaa 1020
aaaaaaaaaa aataaaaaaaaa aagcggccgc c 1051

```

<210> 61

<211> 576

<212> DNA

<213> Rattus norvegicus

<220>

<221> unsure

<222> (0)...(0)

<223> n = A, T, C, or G

<400> 61

```

tctagcgaac cccttcgctg aaaccaccgt tcacacggga aacctgggtt aggcttttgt 60
cctcagtgac acagaggatg tagtcacag ctaggtagaa atgtcagggt cccaacacta 120
ctccagctgt gactttgatg cttgggggat ggggtcgag gctattttct ctgctttaac 180
agttcataga atttaacaga taagagttag tgtctttcat gtggcctcac tctggagtta 240
tgagaacata cacacggttt acagcttttc aatatncctt tccctggcca tcaagtattt 300
tgaaagtgtg ccacctttta acctttgcgc tttatttttt tttctttttt taaagntgaa 360
ggtgataatt cttctatata tgatgaaact caatgtctac tgaaataagt gtaaccctag 420
ctatncacgt ttatntttta aaaccacgct atggagatat taccgccagt tctgtcnttt 480
ngcaagattt acagnacctt ccncccccc ctttagcat tnaataaaaa natattgggg 540
agcncnntna aaaaaaaaaa aatnaaaaaa agcggc 576

```

<210> 62

<211> 587

<212> DNA

<213> Rattus norvegicus

<220>

<221> unsure

<222> (0)...(0)

<223> n = A, T, C, or G

<400> 62

```

tctagcgaac cccttcgctg gatctgatcc gagctgagac ttggggagct ctggctccgt 60
gttggctgca gcatcccca tggctctgtc tgagggtgcc tgtgactcga ctcttcagaa 120
ctcaatgaag tagatgactt gactacaatg tggaacatc atgacagaaa gtgtggtttg 180
taccggggcc gtcagcactg taaaggaagt ctgggaagaa agaataaaga aacatcatga 240
agatgtgaaa cgagagaagg aatttcagca aaagctagtg cggatctggg aagaccgagt 300
gagtttaact aagctgaaag agaaggtgac cagggaagat ggaagaatca ttctaaggat 360
agagaaagag gaatggaaga ctctcccttc ttccttactg aaactgaatc agctacagga 420
gtggcaactt cataggaccg gattgttgaa aattcctgaa ttcattggaa gattccagca 480
tctcattggt ctgacttat ctcggaacac aatttcagag atccccccga ggcattggag 540
tgntcactta gacttcaagg aactgattct tagctacaca aaatcaa 587

```

<210> 63

<211> 142

<212> PRT  
<213> Rattus norvegicus

<220>  
<221> UNSURE  
<222> (0)...(0)  
<223> Xaa = any amino acid

<400> 63  
Met Thr Glu Ser Val Val Cys Thr Gly Ala Val Ser Thr Val Lys Glu  
1 5 10 15  
Val Trp Glu Glu Arg Ile Lys Lys His His Glu Asp Val Lys Arg Glu  
20 25 30  
Lys Glu Phe Gln Gln Lys Leu Val Arg Ile Trp Glu Asp Arg Val Ser  
35 40 45  
Leu Thr Lys Leu Lys Glu Lys Val Thr Arg Glu Asp Gly Arg Ile Ile  
50 55 60  
Leu Arg Ile Glu Lys Glu Glu Trp Lys Thr Leu Pro Ser Ser Leu Leu  
65 70 75 80  
Lys Leu Asn Gln Leu Gln Glu Trp Gln Leu His Arg Thr Gly Leu Leu  
85 90 95  
Lys Ile Pro Glu Phe Ile Gly Arg Phe Gln His Leu Ile Gly Leu Asp  
100 105 110  
Leu Ser Arg Asn Thr Ile Ser Glu Ile Pro Pro Arg His Trp Thr Xaa  
115 120 125  
His Leu Asp Phe Lys Glu Leu Ile Leu Ser Tyr Thr Lys Ser  
130 135 140

<210> 64  
<211> 819  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> unsure  
<222> (0)...(0)  
<223> n = A, T, C, or G

<400> 64  
tctagcgaac cccttcggtt ctgttggcta cacagctgca gagccatggc tgaccgttca 60  
ctgtcagggg cacatgttac actaagcttc atgacagtga tgtaataatg ttacacattt 120  
gtcttgtagt tatgtattga agtttctgtc ctgttttgtg taaaaatgta tccactcttg 180  
tatatatatta gacttgaaac taccacacaa atattggaac ggtttgcttt atgaagttaa 240  
aagtatcctt ccgaatggaa ctaacttgct ttgtgctcag acatatacta tgctgatgta 300  
ttttgcaata tactatctta aattaaatct ggtcactttg ttgccttttt aaaaagtgtg 360  
gtatttcaag tagagttatt ttcctgaaat atatttgcaa actcaagctg ctttataatc 420  
aaggaatatt tttattgatt gaagaaaatg actgctgcaa ttcaaaagtg aacttatttt 480  
attatataga tgatttctta aaagctattt ataccatgat acaaaatcat gtagtgatcc 540  
tgaggactcg tagttcttcc tgtaataaac attcaacact gtatgctaga ggcagcaatg 600  
ccaacactga agttattttg ggtgaaaacc gtcgttctgn cctgtttagc tggggattat 660  
taaataccata taatgtatgt gcttatgtat gctacatgtg caagttaggt gtttcctttg 720  
tgttctgctt attaaatgtc attcagattc acttcttgaa ttctaataaa gaggggaagct 780  
attggaaaaa ataaaaaaaa aaaaaaaaaa gcggccgcc 819

<210> 65  
<211> 1648



<212> DNA  
<213> Rattus norvegicus

<220>  
<221> unsure  
<222> (0)...(0)  
<223> n = A, T, C, or G

<400> 65  
tctagcgaac cccttcggtg gcgcacgccg gtaggatttg ccacgcaa at gctggaatta 60  
aagacatgca gcagcagcgc cctgtggttt tggtttttta tttgattgct tattttttatc 120  
taatttttaa ttttttgtgt atgaacgttt tatctgcatt tatgtctctg taccacattc 180  
gtgcctggtg ctatggaggc caaaaaagga ttttagggcc gagattgtag ttatagatgg 240  
ttgtgggctg ccaatctgag tgctgaaaat taaacctggg tactctgaaa gaccagccag 300  
tgctcttaac tatcaggcca cctctccagc actattttat tttattttat ttgtggagat 360  
agggtctctc tctctgtatc ctagtctaac ttaaaacata aagaatattc tgtatcagta 420  
tccttgagta ctaggattct aggcacctgt cattatgcct agatttttaa cagtgtgtgt 480  
taattctaca taaaaatgaa tttcattatt acattttcac acttggaag aatatacttt 540  
gatcataatt ccttctcctg ataacttttc ctatccttcc tccccactcc attagttccc 600  
ttcttctttt cagagtctac cttctacttt ttactttgat ttttttcccc ccacattctg 660  
tggttgagag aatgcatatt acagttgtat ttctgaatct ggctaggtag attcacttaa 720  
cataattaat gatcctgggc gagcgaagg gttcncctan cnaaccctt cggttcaata 780  
ccatttcaga gatgggcatt tccctcaatg aaatacacaa gtaaaccatt cgacattgtc 840  
tttaggagtg tttgttaaaa aaaaaaaaaa aaaaaaccan ancccaaaaan caaaaaaaaaa 900  
aaagctttgc accttgcaaa agtggtcctg gcgtgggtag attgctgtta atcctttatc 960  
aataacgttc tatagagaat atataaatat atatataatt atatctccta gtccctgcct 1020  
cttaagagcc gaaaatgcat ggggtgttga gacattcggg tgcaactaaat tcctctctga 1080  
atthtggctg ctgaagccgt tcatttagca actgtttata ggtgggtgat gaatggttcc 1140  
ttatctccat ttcttctat gtacttaag ccgcttcctt cacagaatct aataatctcg 1200  
tctaggccat tagccctgcc ctttcttaac attcttgtat ttgttgaatt tggcctcctc 1260  
gaaagcaata gcaactgggt ggccaccca agttttaacg cccctgattc catctatggc 1320  
atttgtacca aatataagtt ggatgcattt attttagaca caaagcttta ttttttcgac 1380  
atcgtgtttc aagaaaaaaa acaaatagaa taacaataac tatgactttg aggccaatca 1440  
tttttaggtg tgtgtttgaa gcatagaacg tctnttaaac tctcaatggg tccttcaa at 1500  
gatgtagtag tatgtaacgt aaatagcagt ttctctctct ctctctctct ttttattttt 1560  
tccanataga gcactatgta aatttagcat atcaataata caggaactat cnccaaaaaa 1620  
aaaaaaaaaa aaaaaaaaaa gcggccgc 1648

<210> 66  
<211> 782  
<212> DNA  
<213> Rattus norvegicus

<220>  
<221> unsure  
<222> (0)...(0)  
<223> n = A, T, C, or G

<400> 66  
tctagcgaac cccttcgtag aactaggagc cagtgttgac cacggctcggg ggctggatac 60  
cccactgcat gctgcagcaa ggcagtccag tgtggagggtc atcaatctgc tcaactgagta 120  
tggggctaac ctgaaactca gaaactcgca gggcaaaagt gctcttgagc tcgctgctcc 180  
caaaagtagt gtggagcagg cactcctgct ccatgaaggc ccacctgctc tttctcagct 240  
ctgccgcttg tgtgtccgga agtgcttggg ccgcacatgt catcaagcca tctacgcact 300  
aggctctgcca gaacccctgg aaaaattcct cttataccaa tagttggaaa catgttgctt 360  
gctgtaggac acttaatata cacattcagt ggcttaaccc actatcctaa aaatctgctt 420  
acctaattag aataaagcct tcataaatcc aaataacttg gttgaacaaa ctcttggtta 480

```

ggttaatggn tgccaagaga taaccagaaa cctttcaagt ttttaactct tggtaattta 540
aaatcaaact gaaatagatg gaaaataata atctatTTTT ggataattca aggacccttc 600
agtatctggg gctgggtcc gcattttgna tactggatag acacacacac aggtaggata 660
nggtaaatna actacttaaa gaatggcctg ggatttaagt cctccagata ttttttaggt 720
ngnggtttcc taaaataaaa ttctggagtg ccaaaaaaaaa aaaaaaaaaa aaaaagcggg 780
cc 782

```

```

<210> 67
<211> 49
<212> PRT
<213> Rattus norvegicus

```

```

<400> 67
Met Ser Ser Ser His Leu Arg Thr Arg Ser Ala Arg Thr Pro Gly Lys
  1             5             10             15
Ile Pro Leu Ile Pro Ile Val Gly Asn Met Leu Pro Ala Val Gly His
      20             25             30
Leu Ile Tyr Thr Phe Ser Gly Leu Thr His Tyr Pro Lys Asn Leu Leu
      35             40             45
Thr

```

```

<210> 68
<211> 538
<212> DNA
<213> Rattus norvegicus

```

```

<220>
<221> unsure
<222> (0)...(0)
<223> n = A, T, C, or G

```

```

<400> 68
gtctagcgaa ccccttcggg aaacttcaac aaaggtacca gcaactacag cgccttgtcc 60
accagatTTT cttcagccaa aagtctcaga ctgagaaacg gttctcggag aagcattcga 120
ccctggtgaa tgatgcctac aagactcttc aggccccgt gagcagagga ctatatcttc 180
taaagctcca aggaatagaa attcctgaag ggacagatta tagaacagac agtcagttcc 240
ttgtggaaat catggaaatc aatgaaaaac tcgcagacgc caaaagtga gacagccatgg 300
aagaggtaga agccactgtc agagctaaac agaaagaatt tacggacaat ataaacagag 360
cttttgaaca aggtgatttt gaaaaagcca aggaacttct tacaaaaatg agatactttt 420
caaacataga agaaaagatc aagttaagca agaaccctct ctagttgcta acttaaaggt 480
ttaaaaaataa actttgtatt tcttcannnn nnannnnnn nntnnnnnnag cggccgcc 538

```

```

<210> 69
<211> 70
<212> PRT
<213> Rattus norvegicus

```

```

<400> 69
Met Glu Ile Asn Glu Lys Leu Ala Asp Ala Lys Ser Glu Ala Ala Met
  1             5             10             15
Glu Glu Val Glu Ala Thr Val Arg Ala Lys Gln Lys Glu Phe Thr Asp
      20             25             30
Asn Ile Asn Arg Ala Phe Glu Gln Gly Asp Phe Glu Lys Ala Lys Glu
      35             40             45
Leu Leu Thr Lys Met Arg Tyr Phe Ser Asn Ile Glu Glu Lys Ile Lys

```

50

55

60

Leu Ser Lys Asn Pro Leu  
65 70

&lt;210&gt; 70

&lt;211&gt; 805

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 70

```
tctagcgaac cccttcgcga aggggttcgc ttcttaccct gtggagaaag gggcaggagg 60
aacctcctgt gttaggagga agctggagct taccactgtg agaggacaga tgtggactga 120
gaattttctt agtgctcagt ggcacttccc aaggactccc ctccccttgt gctctgtgcg 180
gttttttagga cagctaagat gactgccacc tgttgtggca ggcccgattt gtcttgttct 240
ccccttactg taccocgata taatctctgt tgatcaacag gactacccca agaatccaca 300
tgttctcccc cgtaaccagg cagctgtctg gttcatgcct tcttcccttc aaacccaacc 360
cagcgccctt gttagtgaag aggtggtcca tggactgatg acaagttatt agcactggat 420
gctgtttcca tagtgacaag cctatacctc ttcccaccct ttagtgcgca gtgggctgct 480
gcttcagtat cctcccagct cagttttatt agatcaaagc tgcccttggg caccatgttg 540
gccacctcaa tcaccagcca aaatggtcgc tttgtccacc agaggtcaag ccattcttct 600
ggcgctgtag ttcccagctc cttctaggga acaggaaagt gatattgcca tgggggaggt 660
ggcggggtgt ggccgtcacc tcaatagttt tactgtaaaa gggaaatttg aacaagaaca 720
acaacaaaaa aaaaaaaaaa acaaagaaaa aaataaaaaa ctttaaaaagt tgaaaaaaaa 780
aaaaaaaaaa aaaaaaagcg gccgc 805
```

&lt;210&gt; 71

&lt;211&gt; 1407

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;220&gt;

&lt;221&gt; unsure

&lt;222&gt; (0)...(0)

&lt;223&gt; n = A, T, C, or G

&lt;400&gt; 71

```
tctagcgaac cccttcgctg ggacccgcaa ctaccaactg ccgcctggat cctaggtgag 60
ctgtgggctc tgacagcgct gtggctaaca tggcacccaa aaagaagact ctcaagaaga 120
acaaacccga gatcaatgag atgaccatca tcgtggaaga cagcccccta aacaagctga 180
atgctctaaa tgggctcctg gggggagaaa acagccttag ctgtgtttct ttcgaactaa 240
cagacacttc ttatgggtccc aacctcctgg aagggttaag taaaatgcgt caagagagct 300
ttctatgtga cttgggtcatc ggtccaaaac caagtccttt gatgtccata agtcaagtga 360
tggtctcctg cagcgagtct tctataatat ccttaaaaac atccatcgac aaaaagggtg 420
gacctcaatg atatcgnccc tttagggtta ccaccgtgat agcatatgca tacacnggaa 480
agctgccctt tctttatata caataaggaa gcatcatttc tgctgctgtg tacctccaga 540
tccacactct tgtgaagatg tgcagcgact ttctgatccg agagatcagt gttgagaact 600
gcatgtatgt tgtaaacatg gctgaaacat actgcttgaa aatgcgaaa gcaacggccc 660
agaaatttat ccgggataac ttcatgaaat ttgccgactc cgaacaattt atgaagctga 720
cgtttgaaca gattgaatgag cttctcatag atgatgactt gcagttgcct tctgagctgg 780
tagcattcca gattgcaatg aaatggatag aattcaacca aaagagagtg aagcacgctg 840
cggatctttt aagcaatatt cgctttggta ccatctctgc acaagacctg gtcaattacg 900
ttcaaaccgt accgagaatg atgcaagacg ctgattgtca taaactgctt gtggatgcta 960
tgaactacca cttactacct tatcatcaaa acacgttgca atctaggcgg acaagaatta 1020
gaggcggtct ccgggttctg atcactgtcg ggggacgccc tggcctgact gagaagtccc 1080
ttagtagaga cgtttatata gagaccctga aaatggatgg agcaagctta cagaaatgcc 1140
agccaagagt ttcaatcagt gtgtggctgt gatggatgga ttcctttatg tagcaggtgg 1200
```

```

tgaggaccag aatgatgcga gaaaccaagc caagcatgca gtcagcaatt tctgcaggta 1260
ccgatccccg cttcaacacg tggatccacc tgggcagcat gaaccagaag cgcacgcact 1320
tcagcctgag cgtgttcaac gggctcctgt acgccggtgg ngggcnccag tgnnganggat 1380
atctgcagaa ttcggctagc cgaattc 1407

```

```

<210> 72
<211> 113
<212> PRT
<213> Rattus norvegicus

```

```

<400> 72
Met Ala Pro Lys Lys Lys Thr Leu Lys Lys Asn Lys Pro Glu Ile Asn
1          5          10          15
Glu Met Thr Ile Ile Val Glu Asp Ser Pro Leu Asn Lys Leu Asn Ala
20          25          30
Leu Asn Gly Leu Leu Gly Gly Glu Asn Ser Leu Ser Cys Val Ser Phe
35          40          45
Glu Leu Thr Asp Thr Ser Tyr Gly Pro Asn Leu Leu Glu Gly Leu Ser
50          55          60
Lys Met Arg Gln Glu Ser Phe Leu Cys Asp Leu Val Ile Gly Pro Lys
65          70          75          80
Pro Ser Pro Leu Met Ser Ile Ser Gln Val Met Ala Ser Cys Ser Glu
85          90          95
Ser Ser Ile Ile Ser Leu Lys Arg Ser Ile Asp Lys Lys Gly Arg Pro
100          105          110
Gln

```

```

<210> 73
<211> 2004
<212> DNA
<213> Rattus norvegicus

```

```

<220>
<221> unsure
<222> (0)...(0)
<223> n = A, T, C, or G

```

```

<400> 73
tctagcgaac cccttcggac actgccagca tagacagcag cccctgctac tgtcccacca 60
ctgtacccca gagccccgac tagcagtatg ccgggagcgc cagggcctgg gcctgagggtg 120
gctgcagcct ttgaggaacg gttgagtcag gcactacagg aactgcaggc agtggctgaa 180
gcaggccggt cagcgggtgac ccaggcagct gatgcagccc tagccactgt agagccagtg 240
gctcaggcat ctgaagagct tcgggcccag acagcagccc tgagccggcg gctggatgcc 300
ctgaccaggc aggtggaggt gctgagccta cggttggtg ttccactcgt gccggacctg 360
gagtccgagc tagagcccag cgagctgttg ctggctgctg ccgaccctga ggccctcttc 420
caggcaagct gaggatgctg ggacccccgt ggccacccgc ctgcctttag caccgcgcgc 480
agctcttctg cgggcccctc tcgaagcagc agtctcatgg agcccgatcc agcagagccc 540
ccctctgcca cagtggaaagc agctaattga acagagcaga ctctggacaa agtgaacaaa 600
ggcccagagg ggcggagccc cctgagtgca gaggagctga tggccattga ggacgaagga 660
atcctggaca agatgctgga ccaggctacg aactttgaag agcggaaagct catccgggct 720
gcgctccgtg agctccgaca aagaaaagaga gaccagagggg acaaggaacg agaacggcgg 780
ctacgagagg cacgggccccg gccaggcgag agccgaagca atatggctac tacagagacc 840
accaccaggc acaagccaga gggcggctga tggctcggcg gtcagcacag ttacaaaaac 900
tgagcgggtc gtccactcca atgacggcac gcagactgcg cgcaccacca cagtggagtc 960
gagtttcgtg aggcgctcgg agaattggcag cagcaagcaa gcagcagcac cacggtccaa 1020

```

```

accaagacct tttcctcttc ctcttcctca tccaaaaaaa tgggcagtat cttcgaccga 1080
gaggacaaaa ccagctcacg ttctggcagc ctggcgggccc tcgaaaaacg ccaggcagag 1140
aagaagaaag agctcatgaa ggcacagagt ctgcccaga cctaagcgtc ccaagcacgc 1200
aaggccatga ttgagaaact agagaaggaa ggctcttcgg gcagtcctgg cacaccccgt 1260
acagcggtac agcgttctac cagcttcgga gtccccaacg ccaacagcat caagcagatg 1320
ttgtggact ggtgccgagc caagacccgt ggctacgagc acgtggacat ccagaacttc 1380
tctccagctg gagtgatggg atggctttct gtgccctggt gcacaatttc ttccctgagg 1440
cttttgacta tggacagctt agcccacaaa accggcgcca gaactttgaa atggccttct 1500
catctgctga gacccatgcg gactgcccgc agctcctgga tacagaggac atgggtgcggc 1560
ttcgagagcc tgactggaag tgcgtgtaca cgtacatcca ggagttctac cgctgtctgg 1620
tccagaaggg gctggtaaaa accaaaaagt cctaaccctt gcttgggggc ccacggatgc 1680
tgggtggactg tgtacccttg gtggaggtgg aggacatgat gatcatgggc aaaaagccag 1740
accctaagtg cgtcttcacc tacgtgcaat cgctgtacaa ccacctgcgg cgccatgagc 1800
tgcgctgcg cggaagaat gtctagccac tgctcacacc gcctgcgctg caggctgctg 1860
tccacgccc ccaacaccgg nccctncagt gngcctgcca ctgntgcccg tntgtcga 1920
cacctntccc cttgtcacac gcagngnttt gataaattat ttgntttnaa caaaaaaaaa 1980
aaaaaaaaaa aaaaaagcgg ccgc 2004

```

```

<210> 74
<211> 114
<212> PRT
<213> Rattus norvegicus

```

```

<400> 74
Met Pro Gly Ala Pro Gly Pro Gly Pro Glu Val Ala Ala Ala Phe Glu
 1           5           10           15
Glu Arg Leu Ser Gln Ala Leu Gln Glu Leu Gln Ala Val Ala Glu Ala
          20           25           30
Gly Arg Ser Ala Val Thr Gln Ala Ala Asp Ala Ala Leu Ala Thr Val
          35           40           45
Glu Pro Val Ala Gln Ala Ser Glu Glu Leu Arg Ala Glu Thr Ala Ala
          50           55           60
Leu Ser Arg Arg Leu Asp Ala Leu Thr Arg Gln Val Glu Val Leu Ser
65           70           75           80
Leu Arg Leu Gly Val Pro Leu Val Pro Asp Leu Glu Ser Glu Leu Glu
          85           90           95
Pro Ser Glu Leu Leu Leu Ala Ala Ala Asp Pro Glu Ala Leu Phe Gln
          100          105          110
Ala Ser

```

```

<210> 75
<211> 881
<212> DNA
<213> Rattus norvegicus

```

```

<400> 75
tctagcgaac cccttcgctc cagggcggtt gcctcctgct gacttgctct tcaccattag 60
acaagcctga cgtcaagacc ccaatggcta acgaagctaa cccttgccca tgtgacattg 120
gtcacaggct agactatggt ggcattggcc aggaagtcca ggttgagcac atcaaggcat 180
atgtcacccg gtcccctgtg gatgcaggca aagctgtgat tgttgtccag gatataattg 240
gctggcagct gtccaacacc aggtatatgg ctgacatgat tgctggaaat ggatacacia 300
ctattgcccc gacttctttg tgggtcaaga gccatgggac ccggctggtg attggtccac 360
cttccctgag tggttgaaat caagaaatgc cagaaaaatc aaccgagagg ttgatgctgt 420
cttgaggat ctgaaacaac agtgtcatgc ccagaagatt ggcatgtggt gcttctgctg 480
ggggggtatt gtggtgcacc acgtgatgac gacatatcca gaagtcagag cgggggtgtc 540

```

```

tgtctatggt atcatcagag attctgaaga tgtttataat ttgaagaacc caacgttggt 600
tatctttgca gaaaatgatg ctgtgattcc acttgagcag gtttctatac tgatccagaa 660
gcttaaagaa cactgcatag ttaattacca agttaagaca ttttctgggc aaactcatgg 720
ctttgtgcat cggaagagag aagactgctc ccctgcagac aaaccctaca ttgaggaagc 780
gaggaggaat ctcatcgaat ggctgaacaa gtatatTTaa cagcactcaa gcacaaattt 840
tgaataatta aattgacccg aataattaaa ttgacccgaa t 881

```

<210> 76  
 <211> 97  
 <212> PRT  
 <213> Rattus norvegicus

<400> 76

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Asn | Glu | Ala | Asn | Pro | Cys | Pro | Cys | Asp | Ile | Gly | His | Arg | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Asp | Tyr | Gly | Gly | Met | Gly | Gln | Glu | Val | Gln | Val | Glu | His | Ile | Lys | Ala |
|     |     | 20  |     |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Tyr | Val | Thr | Arg | Ser | Pro | Val | Asp | Ala | Gly | Lys | Ala | Val | Ile | Val | Val |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Gln | Asp | Ile | Phe | Gly | Trp | Gln | Leu | Ser | Asn | Thr | Arg | Tyr | Met | Ala | Asp |
|     |     | 50  |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Met | Ile | Ala | Gly | Asn | Gly | Tyr | Thr | Thr | Ile | Ala | Gln | Thr | Ser | Leu | Trp |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     | 80  |     |
| Val | Lys | Ser | His | Gly | Thr | Arg | Leu | Val | Ile | Gly | Pro | Pro | Ser | Leu | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

Gly

<210> 77  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer specific for vector to produce "Driver DNA".

<400> 77  
 cgtatgttgt gtggaattgt gagcg 25

<210> 78  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer specific for vector to produce "Driver DNA".

<400> 78  
 gatgtgctgc aaggcgatta agttg 25

<210> 79  
 <211> 28  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Oligos corresponding to polylinker sequence.  
  
 <400> 79  
 gccgccagtg tgctggaatt cggctagc 28  
  
 <210> 80  
 <211> 28  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Oligos corresponding to polylinker sequence.  
  
 <400> 80  
 cgaattctgc agatatccat cacactgg 28  
  
 <210> 81  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Oligos corresponding to polylinker sequence.  
  
 <400> 81  
 ctagagggcc caattcgccc tatag 25  
  
 <210> 82  
 <211> 25  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Oligos corresponding to polylinker sequence.  
  
 <400> 82  
 tgagtcgtat tacaattcac tggcc 25  
  
 <210> 83  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Oligos corresponding to polylinker sequence.  
  
 <400> 83  
 gctcggatcc actagtaacg 20  
  
 <210> 84  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>

<223> Oligos corresponding to polylinker sequence.

<400> 84

tttttttttt tttttttt

18